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ABSTRACT

As part of a 3-year research project, a study focused on the character and the consequences of vocational and academic teachers' professional identities and relationships within comprehensive high schools. Information was gathered through interviews, observations, and survey queries in five high schools in California and Michigan. The views of 35 high school vocational teachers were studied, and attitudes of academic teachers were also observed. The study found that the vocational teachers often were held in lower esteem by their peers and administrators and sometimes were embarrassed by their subject matter. The standards for status were the subjects taught by universities, although vocational teachers pointed out, to little recognition, that their subjects were necessary for developing the work force. Vocational education teachers often taught a higher proportion of special education students than did academic teachers. Vocational and academic teachers often had little contact and little in common unless they served on faculty committees or coached sports together. Some departments had a sense of community and cohesiveness, which varied from school to school. Usually, vocational teachers suffered lack of prestige and lack of support from administrators, other teachers, students, and parents. (The five high schools are profiled in the appendix; 44 references are included.) (KC)

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VOCATIONAL AND ACADEMIC TEACHERS IN COMPREHENSIVE HIGH SCHOOLS

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TWO WORLDS: VOCATIONAL AND ACADEMIC TEACHERS IN COMPREHENSIVE HIGH SCHOOLS

Vocational and academic teachers occupy two separate worlds in comprehensive high schools. Not all teachers and not in all schools, to be sure, but the "two worlds" phenomenon is sufficiently pervasive and embedded in habitual ways of thought and deed, to command attention. Research on secondary schools underscores the relative primacy of the academic domain. That is, the discoveries of the past decade regarding school context, teachers' professional development, and teachers' career commitment are derived nearly exclusively from teachers in the core academic curriculum, or are presented in ways that obscure within-school differences. Vocational teachers have remained nearly invisible in the mainstream literature on high schools, despite the considerable attention devoted to the problems and prospects of a vocational curriculum (Grubb & Lazerson, 1988; Stern, Hoachlander, Choy, & Benson, 1985). This paper attends to the place that vocational teachers occupy in the professional community of the high school.

This analysis of teachers' worlds is shaped most broadly by a concern for the vitality of secondary schooling. The enrollment of secondary schools has grown and diversified dramatically in the nearly fifty years since the end of World War II. Large-scale studies of American high schools have generally supported the escalating criticism that too many high schools are "selling students short" (Sedlak, Wheeler, Pullin, & Cusick, 1986).[1] Such studies have culminated in reform proposals that challenge long-standing patterns of practice. Among the lofty aims that many reformers seek is a more productive integration of the vocational and academic aims of schooling. Yet few of the critics or proponents of reform have illuminated teachers' own experiences with high school teaching in ways that would help one to assess the genuine prospects for change. Prior studies of high schools, with the possible exception of Sizer's (1984) composite portrait of "Horace," have done little to illuminate the dailiness of high school teaching, or to show how daily realities position teachers to embrace or resist new possibilities. Indeed, one of the dilemmas we encounter is the way in which divisions of purpose, program, and people are so well-rooted in the language of schooling. Even as we try to imagine and invent new forms of schooling, or new relations among teachers, we find our descriptions of present practice confined by the conventional dichotomies: academic *versus* vocational programs, purposes, and subjects; academic *versus* nonacademic students, teachers, and departments. A more integrative language remains elusive.

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[1] Among the most widely cited studies are Boyer (1983); two volumes resulting from Sizer's study of eighty high schools (Powell, Farrar, & Cohen, 1985; Sizer, 1984), and Cusick (1983).

"High school" as most of us know it has proved remarkably resilient in the face of escalating demands for reorganization and reform. Prospects for remedying the fragmentation of the "shopping mall high school" or the sterility of the "bargained curriculum" are linked in part to the ability of teachers and others to reconsider long-standing patterns in the organization of high schools and in the purposes they espouse. The reform of secondary schooling is, after all, a human and social enterprise. It rests not only on adequate material resources, but also on the intelligence, will, knowledge, and imagination of those who work in and with schools.

An ambitious three-year study of teaching and teachers in urban and suburban secondary schools offers the opportunity to understand why it is that high schools prove so impervious to pressures for change, and to uncover the resources for reform. Through interviews, observations, and survey queries, we have begun to examine both the character and the consequences of teachers' professional identities and professional relations. This paper concentrates on aspects of professional identity and community in five of those schools, all comprehensive high schools in a single state.[2] In our focus on the comprehensive high school, we do not deny the contributions of specialized vocational centers or other kinds of specialized schools,[3] but choose to concentrate on those arenas in which gains would reasonably affect the largest pool of teachers and students. The largest of the schools, suburban Oak Valley High School, is dominated by a "college prep" orientation; the four vocational departments have witnessed a steady decline in staffing and course offerings, together with a shift from a "vocational" perspective to one centered on more general "life skills" education. Onyx Ridge High School, on the suburban edge of an urban district, also prides itself on maintaining its college preparatory mission as its bused-in minority population increases. Vocational programs have been dropped or converted to personal-interest electives. Esperanza and Rancho are urban schools notable for their large enrollment of non-English speaking and limited-English speaking students. In both schools, the story of vocational education is the story of accommodations to an "ESL" population. And at urban Valley High School, where vocational course offerings have retained much of their traditional character, programs survive in part by serving the school's large population of special education students.

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[2] An extended description of the five schools is appended to this paper. Table 1 (Appendix A) compares the schools with regard to size and location, student population, vocational staffing, and the main "story" of vocational education. All sites and individuals have been supplied with pseudonyms. In addition, the paper incorporates some references to data collected in a substudy involving high school math teachers who are active participants in one of the Urban Mathematics Collaboratives supported by the Ford Foundation. For more detail on that substudy, see Little and McLaughlin, 1991.

[3] See, for example, the overview and case examples of specialized "occupations" high schools assembled by Mitchell, Russell, and Benson (1989); Stern and Dayton's (1990) description of vocational academies; and the examples of eight integrative models described by Grubb, Davis, Lum, Plihal, and Morgaine (1991).

We made an effort to interview and observe all vocational teachers in the business, industrial arts, and consumer/family (home economics) departments. Vocational agriculture, a prominent component of vocational education nationally and in rural California, was not well-established in these urban and suburban schools. Among the five schools, we found two vocational agriculture teachers, one of whom split his teaching assignment between two sites. Of the nearly sixty teachers who were candidates for this study over the three years, thirty are represented in the survey data and thirty-five provided us with interviews. This paper concentrates on the views and circumstances of vocational teachers, but also contrasts them with the views and circumstances of teachers in the core academic departments (i.e., English, social studies, math, science, and foreign language).

Most vocational teachers were eager to talk to us, and willingly made time for us during the school day. Some stayed well after the end of the school day to talk. They completed surveys, sometimes appending notes. In the largest of our sites, the survey response rate among the vocational teachers was 100%, and department heads made special efforts to help us schedule individual interviews, group interviews, and attendance at department meetings. Teachers invited us into their classrooms, and welcomed us into the more informal exchanges between classes and during breaks. We were left with the impression that these were teachers without a forum. We interpreted their participation in this study as one way to make themselves heard.

In a prior report, titled *Work on the Margins* (Little & Threatt, 1992), we introduced two aspects of teachers' work and workplace that play a large part in forming the environment of teaching. Together, they constitute important influences on teachers' perspectives, performance, and commitment in the five schools. First, the various purposes and priorities that teachers embrace create "like-mindedness" among some and forge divisions from others. Teachers designated "vocational" and "academic" are joined by a common interest in the general maturation of the students whom they teach, but are divided by the more specific priorities they pursue. They are located differently in relation to the central purposes and priorities of the comprehensive high schools in which they work. We also discovered some of the ways certain teaching conditions differentially shape identity and community. Vocational and academic teachers both experience the general working conditions of a school, a district, and a community, but their day-to-day environments differ in important ways. Prominent among these differences are the student clientele each sees in the classroom and the curriculum resources on which each depends. These discoveries have been incorporated, more briefly, in this paper.

Three additional aspects of professional community shape relations within and among vocational and academic teachers and serve to organize this paper. First is the generalized pattern of isolation or involvement among colleagues, and the collegial dynamic fostered by competition over student enrollment and other resources. Second is the legacy of subject specialization, and the conditions surrounding subject expertise and subject status. Finally, the departmentalized structure of the high school both opens up and closes down opportunities for a more unifying construction of high school teaching. From whole-school studies informed by a micropolitical perspective (e.g., Ball, 1981, 1987; Hoyle, 1988), and from other recent work on the nature of sub-units in organizations (Scott, 1989), we emphasize in this paper the ways in which instructional assignments, the primacy of departments, and other aspects of the school workplace create or inhibit professional community among these teachers.

Vocational and academic teachers share certain realities that demarcate the occupation of teaching from other work. Both rely on the ebb and flow of life in a classroom to yield a sense of "craft pride." Both spend their work days surrounded by throngs of adolescents, and work with them both in classrooms and in a range of extracurricular activities. Among both groups, there are those who bring to teaching a passion for their subject and an enthusiasm for the students they teach; and there are those for whom teaching is no more than a job. In these and other ways, the teacher of Occupational Auto and the teacher of American Literature dwell in the same world. There are also important differences between them, however, and it is the differences that dominate teachers' talk about their schools. Further, these are differences with important implications for reform efforts that center on the integration of vocational and academic aims.

On the whole, there is little in the formal and informal social organization of these five schools to bring together the various parts of the curriculum or the teachers who teach them. The disincentives and barriers to a meaningful integration of purpose and program serve not only to separate the vocational and the academic, but also to fragment the entire curriculum and the way that both students and teachers encounter it. In such ways are theory and practice made disparate, opportunities to learn diminished, and schooling and work given little apparent relation to one another. Yet throughout, in the resources of subject expertise and subject loyalty, and in teachers' persistent struggle to make a difference in the lives of their students, we locate possibilities for change.

PROFESSIONAL COMMUNITY IN THE HIGH SCHOOL

As defined by Van Maanen and Barley (1984), an occupational community is "a group of people who consider themselves to be engaged in the same sort of work; whose identity is drawn from the work; who share with one another a set of values, norms, and perspectives that apply to but extend beyond work-related matters; and whose work relationships meld work and leisure" (p. 287). At one level, teachers might be said to form an occupational community distinct from other occupations. But within teaching there are also distinct communities of teachers. Beyond the formal distinctions made by categorical labels are the connotative dimensions that "lead some members to separate themselves from others who do denotatively similar work" (p. 295). In this paper, insights into teachers' professional community (or communities) derive from a comparison between teachers of the core academic subjects—English, social studies, science, mathematics, and foreign language—and those in three traditional vocational subjects—industrial arts, business, and home economics. To what extent are these vocational and academic teachers members of the same professional community? In what ways do their respective orientations to the work of teaching foster closer integration of their work, or inhibit it?[4]

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[4] Although these questions have not been posed in relation to U.S. high schools, they have been pursued in studies of comprehensive secondary schools in Australia (Connell, 1985) and Britain (Burgess, 1983).

Among Colleagues

Teachers' work occurs mainly in the company of students. In a six-period instructional day, most teachers spend five periods in the classroom. Against a backdrop of classroom preoccupations and classroom privacy, however, one can detect considerable variations in the nature and extent of teachers' professional and personal relations with one another. Teachers come together (or not) in the moments before the school day begins or in the passing periods between classes. They see one another during an assigned preparation period, over lunch, and in the occasional after-school meeting. Some teachers can be found in their classrooms throughout the day, even at lunch. They venture out only to collect mail from the office, or to attend required meetings. Others seem not isolated at all; when not in class, they are immersed in a round of lively and nearly continuous exchange with colleagues on topics ranging from student work or classroom activities to family matters, sports, and the state of the economy. Greetings exchanged in passing, and stories told in the moments between classes, convey some sense of a "backstage" life among the school's adults. Some individuals and groups exude openness, others a stiff reserve. Some colleagues supply one another primarily with a warm and congenial personal environment; others provide professional advice, ideas, or collaboration on new ideas or projects. Friendships (and occasionally feuds) may span decades, and extend well beyond the school walls.

The collegial environment is in many ways more dynamic, more fluid, and more complex than might be anticipated by dwelling on general patterns of teacher isolation or on the boundaries constructed by subject and department loyalties. We find quite varied expressions of individualism and community within each of these schools. Yet in the relations between vocational teachers and their academic colleagues, the dominant theme remains one of categorical division: a general physical, social, and educational separation that divorces vocational from academic teachers; and a pattern of competition over student enrollment and other resources.

The General Separation of Vocational and Academic Teachers

Vocational and academic teachers occupy separate domains in these five comprehensive high schools. Their separateness is reinforced in the teaching priorities they express, and in various organizational constraints on contacts among colleagues.

Teaching Priorities

The classroom affords the most immediate return on teachers' efforts. Students form teachers' most profound working condition (see especially Metz, 1990, in press). Teachers may be united or divided by the priorities they express and the views they hold regarding "what's best for kids." (See, for example, the description of competing teacher subcultures in Metz, 1978; Hargreaves, 1986; Ball, 1987). In this respect, vocational and academic teachers do share a concern for students' command of basic academic skills, their overall level of academic achievement, their personal maturation, and their social development. Nonetheless, it is the differences rather than similarities in their orientation to teaching that stand out in teachers' talk. Whereas academic teachers more often sound the recurrent theme of subject mastery and college preparation, and derive their sense of individual and institutional pride (or frustration) from academic accomplishments, vocational teachers more often are set apart by their concerns for preparing students for work. Greta Royce at Onyx Ridge explains:

> I teach the Child Development program, and my program has been designed and developed to train high school students to be preschool teachers. I'm a home economist, my degree is in that. And, so, I could be teaching any of the other regular Consumer/Family classes. However, I selected vocational education because I feel it's just so vital for our students to have an opportunity to pursue career interests at the high school level.

The principal of Ms. Royce's school does not share her view:

> I have to tell you that even personally I am not convinced that our job should be training kids for jobs in high school. I think we're doing a disservice to kids by having them shut down their options too soon and sending a message that all we're about is to prepare them for a job. And I don't feel that's what we're really all about. That's an aspect of what we're about, but I don't believe it's our primary purpose.

The collegial environment in which Greta Royce teaches is shaped in part by this principal's perspective on school priorities generally and on the nature of work preparation specifically; what a teacher describes with conviction as creating opportunity for the student to "pursue career interests" is cast by the principal disparagingly as "shutting down options" and preparing for "a job." The principal's views are consonant with the disposition toward college preparation that most teachers in the school express. Here and elsewhere, academic teachers differentiate college preparation clearly from vocational preparation in the short term (i.e., preparation for work immediately following high school, or following completion of a vocationally oriented community college program). Only rarely did we encounter an academic teacher who questioned a climate which rewards and celebrates achievement only as it leads to college admission—even in the face of evidence that a large proportion of the graduates of these five schools enter the workforce directly from high school. On the surface, at least, the language that teachers employ to describe their interests and state their priorities serves largely to separate vocational and academic teachers, and to grant a lesser place to the former.

The vocational departments in these schools, accounting for about twelve percent of the teacher workforce and a slightly lower share (10.8%) of the scheduled course offerings, hold views of the school's student population, students' probable futures, and the school's appropriate mission that differ markedly from those of the academic departments. The disparity in views works to the disadvantage of the vocational teachers and their programs (except when specific courses are framed as personal interest electives). On the whole, the allocation of resources and the configuration of courses in these five schools are consistent with the widely shared priority placed on preparing students for college and for occupations dependent on higher education. Valley High School is the only one of the five schools in which the level of vocational staffing and course offerings has remained relatively stable and in which the content of vocational preparation has remained most recognizably "vocational." This is not to say that the vocational and academic teachers at Valley see one another as pursuing common aims, however, or deriving comparable satisfactions from their work. Rather, those academic teachers who have been at Valley for many years continue to express dismay at the loss of their "good" (i.e., academically successful) students to nearby Onyx Ridge when the latter opened more than ten years ago.

Vocational teachers' relationships with other faculty members are often congenial, but not collaborative in any meaningful sense of the term. Esperanza's vocational teachers, for example, tend to characterize the faculty as a mutually supportive group whose members share a commitment to students. Business teacher Emily Hunter says, "The faculty is very supportive of each other. And we all work together and we all have common goals. We may not always agree, but we can agree to differ and still get along." Yet despite the fact that she extols the "innovative programs" at the school, and despite her observation that "teachers are willing to try things," there are few examples of joint effort across departments. Her colleague, Olive Roark, comments, "Everybody on the faculty is friendly, but we don't really work with them." Indeed, the school's collegiality score (derived from survey measures) is relatively low, and the specific stories we hear from vocational teachers tend to focus on failed attempts to coordinate curriculum, or on roadblocks set in the way of vocational course development. Another business teacher at Esperanza describes faculty interactions now as "mostly just social," and tells of abortive efforts to coordinate her business curriculum with the report-writing requirements of the English department:

> We tried to start something about two or three years ago. We were trying to agree on a format for reports. The English department can't even agree on a format so we go ahead and teach the one that's in our book and say, "This is how you do footnotes." We spend a day on it and say "Use end notes." Footnotes are a pain in the neck on a computer unless you have a really good program that will do the footnoting for you. So we never really got to any agreement there.

At Rancho, the school's past efforts to organize by "learning units" rather than by departments enabled teachers in various subject areas to know one another and to establish grounds for personal respect independent of subject affiliations. According to one long-term teacher, "They have come to respect us as individuals because we have worked alongside them on so many committees." Respect for vocational programs, however, is notably absent from her account. Further, she describes the advantage of her participation in her learning unit not in terms of opportunities for cross-disciplinary work, but in terms of maintaining a voice on behalf of vocational interests. At Rancho, as elsewhere, congeniality stops well short of collaboration.

The generalized emphasis on academic competence in these schools, and the persistent distinctions made between "preparation for college" and "preparation for work," make potential commonalities in purpose hard to detect. One route to the discovery of common interests (or to the more precise illumination of genuine differences) is through detailed knowledge of one another's curriculum priorities and classroom practice. In annual surveys, we asked a series of questions about teachers' instructional priorities, their perceived autonomy with regard to curriculum and pedagogy, and their sense of influence over matters of school and departmental policy. With the exception of math, few teachers reported deep familiarity with the content and goals of courses taught by other teachers—even within their own department. Based on these responses, and on the accounts teachers provided regarding their actual work with colleagues, it appears that curriculum coordination only rarely takes the form of specific agreements worked out among colleagues and played out in day-to-day interaction. Oak Valley's English department exemplifies the possibilities that reside in close consultation on matters of curriculum and instruction; this twenty-five member department gives the impression of a perpetual "rolling seminar." More often, however, active coordination or collaboration is supplanted by a tacit belief that rigor and consistency are sufficiently assured by certain externalities such as texts, tests, university admission requirements, state and local curriculum frameworks, and parent expectations.

This pattern of "independent artisanry" (Huberman, in press) affects vocational and academic teachers alike. Most academic teachers conduct their classroom teaching and make their curricular and instructional choices in isolation from one another, and especially in isolation from teachers outside their own subject specialty. But vocational and academic teachers are further separated from one another by differences in the priorities with which they are aligned, by the reliance on broad rhetoric rather than explicit discussion to match educational purposes with curriculum and pedagogy, and by the absence of routine mechanisms for ensuring that teachers come to know and take account of one another's perspectives and practices. Nothing in the work of teaching itself drives interactions among the general pool of high school teachers, or between the vocational and academic teachers specifically; a compelling interdependence is virtually absent.

Constraints on Professional Contact

Even where teachers have reason to interact, they may have limited time and space for meaningful contacts. That is, low interdependence is compounded by limited opportunity. In multiple ways, the opportunity of teachers to come together in these schools was organized in ways that reinforced existing divisions between vocational and academic teachers. Of course, many of these same structures of time and space also operated to divide academic subjects from one another.

Physical Proximity

Sheer proximity enables or constrains teachers' contact with one another. Vocational facilities are often found on the edges of a sprawling campus, or otherwise at a distance from academic classrooms. In four of the five schools, teachers have been organized by subject matter groupings. At Oak Valley, the industrial arts facilities lie at the farthest reaches of the large campus. Individual departments are housed in separate buildings, each with its teacher workroom and core classrooms. On a typical day, four of the industrial arts department's six members gather in the office adjoining the wood shop during the long break between second and third period, and again at lunch. English teachers, too, can be found clustered in their department office during these times, while social studies teachers gather in two- or three-person friendship groups in individual classrooms. Teachers complain that there is no single place that is both large enough to hold them all and congenial enough to attract them. At Onyx Ridge, small staffrooms scattered throughout the campus attract specific friendship groups. Esperanza's faculty dining room is spacious and airy, with small tables that permit genuine conversation; the drawback to such an arrangement is that there is nothing in the arrangement of the furniture alone that would help to alter existing social and professional groupings. The physical isolation of most vocational teachers is thus exacerbated by the more general pattern of physical separation and programmatic fragmentation in these schools.

Departmental Organization

Strong departmental boundaries create professional affiliations that are bound up with subject matter background and interests. Such affiliations extend beyond the school walls, as teachers participate in professional associations and activities defined by disciplinary interests. Individual predilections and habits may be strengthened by school and district policies that locate responsibilities for curriculum development, curriculum coordination, and administrative management within departments. In Oak Valley, the district policy requiring subject coordination across schools links teachers closely within subjects, but depresses cross-curricular coordination or initiative within schools. By requiring that there be uniformity or agreement among subject departments in its three high schools, the district limits the curriculum development ventures that individual departments might undertake with other departments in their home school. Coordination is presented largely as a problem of within-subject alignment across levels and sites. There are some exceptions, as in one cross-curriculum project undertaken by an English teacher and a social studies teacher with School Improvement Program funds. Such projects, however, tend to be few in number and small in scale. They are, in effect, isolated "projects" rather than patterned ways of doing business. A subject-specific orientation has thus dominated teachers' thinking and consumed a large share of teachers' discretionary time. On the favorable side, this district has a history and a mechanism for discussing and debating curriculum priorities, and for coordinating curriculum practice. The ground is laid for joint ventures not so tightly bound to subject boundaries.

In principle, teachers whose assignments span two departments present one avenue for integration of vocational and academic perspectives and practices. The teachers who hold such split assignments, however, tend not to describe them in those terms. For some, the most salient feature of such assignments is the weakening effect they have on the home department. A teacher who maintains a split assignment in home economics and English contrasts the collegial environment of English with the isolation she experiences as the lone home economics teacher.

> Well, I have more relations with the English department than any other. . . . We have different meetings and they help each other as much as possible. But with home ec, there's nobody to work with.

Similarly, vocational teachers' participation in various work experience programs may lead to professional ties that are strongest outside the school. Vocational teachers are noticeable for the number of contacts they maintain beyond the school walls: with employers and internship sites; with community colleges; and with the administrators of Regional Occupational Programs[5] or other special state and local ventures. Audrey Cummings teaches ROP-funded child development classes in two schools. The combination of a split assignment and involvement in ROP classes seriously constrains her opportunities for interaction with other teachers. Because her students are in field placements after the first six weeks, she spends a large proportion of the school day off-site: "I don't meet anybody here because I'm by myself."

Out-Of-Classroom Time

A teacher's working day offers some provision for discretionary time out of the classroom, most prominently before and after school, during scheduled prep times, and at lunch. On the whole, teachers have more opportunity and more apparent inclination to seek the company of others within their departments than to venture into other departments. There are exceptions, times when teachers from various subject backgrounds routinely come together—at least to the extent of being in one another's presence, if not always and necessarily engaging in joint work. One such exception is the periodic after-school faculty meeting or "prep period" meeting whose agenda is typically set by the principal. A second is the school-level council or committee organized as a general forum for school-site decision-making, or the ad hoc task force convened to address specific priorities or problems (e.g., Oak Valley's technology committee). A third exception, in the three schools that officially recognize the position of department head, is a regularly scheduled meeting that brings department heads together with site administrators. In such an environment where major policy and resource allocation decisions are debated, department heads may be more attuned to their competitive relations with one another than to the prospects for integrative work. Finally, district- or school-sponsored inservice events may invite interaction among teachers who otherwise work quite separately from one another. These occasions all bear a certain stamp: they are relatively infrequent, and thus of questionable force in day-to-day work; and they are more likely to be controlled, in form and substance, by administrators or specialists than by teachers themselves. At the best, such occasions may offer well-conceived and well-supported opportunities for teachers to deliberate about matters that profoundly affect their own work. But even at the best, these occasions pale in intensity beside the demands of the five- or six-period teaching day.

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[5] The Regional Occupational Program (ROP) is a state program administered by the state department of education and implemented through county offices. ROPs offer entry-level job training for local job markets, plus career exploration and preparation for higher education in a related skill. The program is open to students sixteen and older, and is organized on a regional (rather than site-specific) basis. Nonetheless, the location of ROP classes at a particular site has implications for teachers and individual schools. The state-funded salary support for ROP teachers enables comprehensive high schools to maintain a richer teacher-student ratio than they could otherwise support, or to slow the effect of teacher layoffs as enrollments decline.

On a daily basis, teachers' preparation periods are the major source of teacher-controlled discretionary time. To some extent, individual teachers prove successful in lobbying for preferred time slots (first or last period, or times contiguous to lunch). However, the schedule is constructed mainly to accommodate student placement needs. Only occasionally do we find deliberate efforts to structure out-of-classroom time to provide concentrated opportunity for teachers' joint work, either within or across subject lines.

After-school time is constrained in still different ways by teachers' involvement in student activities or by commitments outside of school. A teacher in the consumer/family studies department at Onyx Ridge found a congenial part-time home in the math department ("really a great group of people"), only to discover that the high proportion of coaches in the department hindered meaningful interaction within the department:

> Teacher: [T]hat department has become very, very segmented. People in that department don't just teach math anymore. A lot of them spend half their time in the P.E. department. And so there's only a couple of them [full-time].

> Interviewer: So you're not saying that they're split ideologically, but that they're split because of their time commitments? Because it would also be possible to think of a department where people have different beliefs about how the subject ought to be taught and what high school kids ought to get from it, and so that divides them.
>
> Teacher: In that way the math department is very close. Their philosophy, I think, is very similar amongst all the people. What I mean though is, for instance, we couldn't do math meetings after school because half of them were coaches.

Opportunity to create professional community even among subject specialists is thus rendered problematic by the multiple demands on teachers. Olive Roark describes a business department in which philosophical differences appear more easily overcome than difficulties surrounding split assignments and crowded schedules:

> We seem to all get along very well together and try to work very closely together. . . . We generally work very well together. [But] one of the people is teaching three periods outside the department. She has two periods in math and one period with the spirit group. So it's sometimes very difficult for her to come to the meetings.

Teachers' Responses to Isolation and Separation

Teachers do not all respond to isolation and subject segmentation in the same ways. That is, it would be a mistake to think of the vocational teachers as chafing for greater involvement while academic teachers serve as obstructionists. Indeed, the themes introduced by the vocational teachers are consistent with those sounded throughout the secondary teacher population. For some, the privacy of the classroom engenders a sense of entrepreneurial pride, a sense that one's program is an individual accomplishment and the basis for professional esteem. For others, programmatic isolation is offset by satisfactions achieved elsewhere. Thus, one business teacher chooses to remain in her computer lab most of the school day, but finds sufficient opportunity for collegial exchange in regularly scheduled department meetings. A home economics teacher devotes considerable time and energy to her own state-funded program in restaurant management, but is not inclined to pursue much involvement with colleagues; she favors time spent with family and on outside involvements. Others settle for a version of benign neglect, or the absence of overt conflict. A home economics teacher at Valley says of the school's faculty, "There's not too much that we have in common, but I have no complaints about the other teachers."

Despite the general dominance of subject-specific alignments, there remain considerable individual variations within schools. Among these teachers are several who adopt a "cosmopolitan" stance, successfully seeking and finding satisfaction in multiple links with colleagues within the school, but outside their departments. Greta Royce is one of two teachers remaining in the Consumer/Family Studies department at Onyx Ridge. She and her partner in the department have pursued a survival campaign to ensure adequate student enrollment and to maintain the integrity of the department. Still, says Royce, "I identify myself as a teacher at Onyx Ridge High School more so than [with] the Consumer/Family Studies department." She considers herself an anomaly in a school where it is more common for people to "identify with their department more than [the] whole school." Noting that many people "retreat into their own little worlds," Royce serves as chair of the school's social committee. But she also creates visible and accessible curriculum-oriented links to her preschool program, involving students and teachers from English, Spanish, and physical education:

> That's one thing that's really kind of fun— I've worked with other teachers on this campus. For instance, the English department, [one teacher] always has her students write children's books. So we work out a thing where she sends down one or two [students] every day to observe the preschoolers and to learn a little about how they interact with each other. And to get an idea about where their interests are. And then they go back to class and they start working on their novel or their children's story. And she comes up with wonderful children's books, and they dedicate them to the preschool children.

Similarly Denise Urban, a business teacher at Oak Valley, describes herself as a person who "does it all." Indeed, when the chair of the department describes Denise, she places her teaching responsibilities in the business department last on her list of identifiers:

> Denise is the softball coach, she is senior class adviser, she's the hospitality chairperson here for all of the teachers at Oak Valley High, [and] she's on the [advisory] committee for teachers. . . . She is just an all-around person. She does a variety of things, and she teaches the computer class.

Two collegial links appear more important to Denise Urban than the department. She coaches girls' sports, which aligns her with other coaches. And she heads up the Teachers' Advisory Council. The Council provides a forum for resolving complaints and problems that teachers may have with administration, department heads, or colleagues, and acts as a mechanism for getting resolution short of filing a formal grievance. Recently [since the arrival of the new principal], the group has been developing as an informal and more proactive advisory to the principal.

Olivia Henry, also at Oak Valley, joins Denise Urban on the Council. She is also a member of the school's highly visible technology committee. She finds committee participation and being a department chair helpful in "developing friendships" in other departments. She uses her position as chair of the consumer/family studies department and her participation in district-sponsored staff development activities to break the isolation that comes from physical and programmatic distance. But unlike Greta Royce's specific arrangements to engage students and teachers directly in her preschool at Onyx Ridge, Olivia Henry's general purpose invitation to "come to lunch" or to "send a few students" has yielded little response:

> When I first opened [the preschool] I had a big open house. I served lunch, I said come on by and see it. Free lunch! A lot of administrators came and a few of my teacher friends, but the majority of the teachers didn't come. . . . I wrote up an article in the newsletter that [the principal] is now putting out called *The Educator*, inviting them to bring their classes or send a few students. I've had one inquiry, but no follow-through even on that one. And that's it!

In a fashion nearly unique to vocational teachers and departments, links with colleagues and with the school may also take the form of public service. At Valley High School, for example, the graphic arts teacher provides all the printing services for the school, including the yearbook. Beth Elgar at Esperanza High School seeks ways to link her business department with other departments and with the larger community:

> I wrote a project to try to involve all the teachers on this campus in one way or another working with industry. . . . Speakers would obviously want to come into the classroom and act as role models and give these students information. Advisory people [could] supplement materials in the classroom to enhance curriculum for the instructor. Another step was to set up a field trip in the direction the teacher wanted to move and expose students to the work ethic, the workforce. So it just took off into all kinds of directions, moving different places for different teachers. The journalism instructor wanted students to learn desktop publishing and didn't have time to research it herself, so we brought an industry person into the classroom.

Such service activity may add to the visibility of the vocational program and to the respect accorded to an individual and a department. Individual and departmental status may be enhanced because the service is one widely valued by students, teachers, administration, and community, and because the service is economically attractive. Most services are small-scale ventures that would make the vocational teachers and topics "useful" to academic teachers.

But "service" may also be constructed and experienced in ways that diminish teachers' status (or do nothing to enhance it), leaving individuals feeling exploited. Industrial arts teacher Ed Gordon lists among the "subtle messages" that discredit his subject expertise "what people ask me to do without even thinking about it. It's never reciprocal. It's like I always have time because I teach wood shop and I don't do anything else on my prep, so I must have time to remodel the whole damn school." He views such requests to provide help with considerable ambivalence, uncertain whether he is being treated as a colleague or a custodian. "My shop is next to the custodial closet, basically. 'Gee, Ed, I need some shelves, can you help me out?' Or, 'I need a bookcase here or there.'"

In the absence of robust ties based in the classroom, many of the identified links between vocational and academic teachers appear to have been formed on the basis of non-teaching activity within the school (e.g., membership on Oak Valley's technology committee or coaching responsibilities), or on the basis of shared personal interests. In these ways, teachers come to be known to one another as individuals; friendships are formed and common interests are discovered quite independent of subject matter affiliation. A few "cosmopolitans" are well-connected in the leadership structure of each school and exert influence that exceeds what would be anticipated by looking only at subject matter affiliations and departmental status. At Oak Valley, Olivia Henry is a union representative, a member of the new cross-departmental technology committee, and a participant on the influential Teachers' Advisory Council. She is also department chair. At Esperanza, Ed Gordon reports that he and others in industrial arts have "taken an active role in school leadership":

> I'm a team captain for the faculty—a contact person. I'm co-chair for the curriculum council. And so we get outside of vocational education. I think [the other industrial arts teachers] and I probably have been around enough and are well-versed enough that we can communicate in these other areas and get some respect that way.

General patterns of status difference between the non-academic and the academic do not account fully for the place in a professional community occupied by individual vocational teachers. Vocational teachers build their personal reputations and construct their professional affiliations in a variety of ways. Some of them are comparable to the routes common to any high school teacher—classroom success, participation in coaching or other student extracurricular activities, volunteer participation on school committees, and participation in social functions.

Nonetheless, for many vocational teachers, isolation is a structural condition difficult to overcome. It remains unclear how patterns of service, committee participation, or school-level leadership might be converted to collaborations that would relieve teachers' isolation and advance the integration of vocational and academic study. The challenge is complicated further by the differentiated curriculum, and the pressure placed on non-academic courses to compete for symbolic recognition and material resources. Overall, the organization of time, space, and subject tends to separate individual teachers from one another, to further separate teachers considered "non-academic" from those in "academic" specialties, and to intensify the departmental basis of professional community.

Competition Between Vocational and Academic Teachers

The general congeniality and warmth among the teachers at most of these schools does little to relieve the underlying competitive reality. As Connell (1985) and others portray the situation, such competition is not grounded in individual dispositions but in a policy orientation that favors the academic curriculum. State and local policy developments throughout the past decade have expanded the academic course requirements for high school graduation, and narrowed the time available for students to pursue elective courses (especially electives deemed "non-academic").[6] In consequence, vocational teachers are a disappearing breed in these schools. The pattern across the five schools shows a steady record of decline in total numbers and in full-time assignment of vocational specialists. Most resilient have been the home economics (or consumer/family studies) and business departments; most diminished have been the trades-oriented industrial arts departments, whose occupational specialties have been absorbed by the two-year colleges.

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[6] This shift toward the academic in secondary schooling has been the subject of continuous and often heated debate. Certainly many of the prominent advocates of reform, including Sizer, would argue against a proliferation of electives and against a curriculum that differentiates students on the basis of their prospects for attending college. In this paper, I do not directly join that debate; the aim here is to examine the way in which the present organization of students, curriculum, and the teacher workforce bears upon teachers' work and thus upon the possibilities for reform.

Vocational teachers compete with one another and with academic teachers for sufficient student enrollment to sustain a full-time teaching assignment. In doing so, they often underscore the separation of academic from non-academic purposes, the differences and distinctions rather than the integration of purposes. One home economics teacher distinguishes the appeal of her courses this way: "It's not theory. It's hands-on and it's something that you know that they can use." Elaborating the differences between vocational and academic pursuits may prove essential in the competition among departments to claim domain over a course (and the associated teacher FTE). An industrial arts teacher recalls a dispute with the art department over teaching assignments for photography classes. Because art courses may satisfy university admission requirements (under a "fine arts" designation), the art department is in a favored position to attract student enrollment. The industrial arts department would have preferred joint credit for the course; if the course qualified for art credit, regardless of where it was taught, the industrial arts teachers could be assured of attracting some of the academically inclined students. When the art department refused to award art credit to a course taught in the industrial arts department, the industrial arts teachers were at risk of losing photography altogether. To maintain their class sections, they were pressed toward a course description that emphasized a vocational orientation:

> It was vocational skill training. . . . This is for professional ends. These are the vocational areas that you want. We believe timelines (getting stuff in) are as important as the composition and the color and the lines and the repetition, the value, the art structure. We've all pretty much agreed in that area.

Ironically, arguments that underscore and protect the distinctive "vocational" domain only serve to weaken other arguments designed to establish vocational studies as a fundamental element of secondary education for all students. Vocational departments attempt to meet the academic departments on their own ground by securing course requirements in vocational topics or by seeking dual credit for some courses. Such strategies require that vocational teachers persuade their academic colleagues and school administrators that selected vocational topics are of sufficient import to be required of all students, or that certain courses are sufficiently "academic" in content to warrant academic credit. In the competition for enrollment, courses that meet requirements or courses that can offer academic credit are advantaged. These have not typically been successful strategies except in cases where academic departments (particularly math) are content to have others teach remedial classes that will satisfy graduation requirements for the lowestachieving students. Xenia Young tells how her business department failed in its effort to introduce a requirement that all students take a one-semester keyboarding class; the department's "big push" failed when other departments saw the proposed requirement as consuming still more "elective" choices for students and thus affecting their own enrollments:

> It went to the curriculum council and people said yes, it's a good idea, everybody should take it. But all of a sudden [they realized] that means less time for music, that's less time for art. That student who is taking an extra semester of English because they just want to take literature—that cuts out my program, no, no, no, you can't have the requirement.

In practice, departments maintain teaching positions by developing a marketable combination of "vocational" courses and courses that might be termed "personal interest electives." Relegated to the marginal realm of the "electives departments," vocational teachers employ a variety of means to market individual courses and programs to administrators and to students. One teacher insists that "We're not antagonistic with anybody about [the extra academic requirements] but we're all doing our publicity, saying 'Come here, come here. We have something to offer you.'" The stories that she and her colleagues tell about brochures and other marketing devices suggest both the amount of effort that may go into marketing activity and the ways in which individual and departmental marketing schemes may be defeated.

Vocational teachers are left largely to their own devices to sustain a full-time teaching assignment composed of courses that both they and students find satisfying. Observers of high schools have drawn attention to the way in which academic teachers' own entrepreneurial activities could result in small empires or market niches of quite idiosyncratic course offerings that preserve student enrollment and maintain teacher interest (e.g., Cusick, 1983; Finley, 1984). For teachers of academic subjects, electives have long been a way of maintaining personal autonomy with respect to curriculum and ensuring a "motivated" student clientele. The path that vocational teachers are following, as they put forth proposals for funds and equipment, and as they market their ideas and their courses to staff and students, is one that is well-trod in American secondary schools. The entrepreneurial strategy has taken new twists since the advent of reform legislation in the early 1980s. In a period of tightened graduation requirements, the opportunity to construct a courseload of specialized electives is certainly less present. The shift in the state's graduation requirements has resulted in increasing the pressure on all students to enroll in courses with academic titles, offered for academic credit.

In our discussion of vocational curriculum and clientele (Little & Threatt, 1992) we described the way in which internal and external pressures support an individualistic form of entrepreneurialism. Teachers "hustle" and "scrounge" to secure additional resources. To the extent that we find collaboration, we find it turned inward, with members of a department working together to consolidate a favored position in the competition over students and other resources. An alternative response, in principle, is to ensure survival by seeking consolidation with other units. The examples are few, and generally take the form of teachers' attempts to secure academic credit for vocational courses. An industrial arts teacher at Esperanza tells of the course in engineering technology that he proposed as part of the school's new science magnet. On the whole, however, the survival orientation drives collaboration internal to a department, and constrains collaboration across departments.

Structural reorganization does not necessarily alter the competitive dynamic. In principle, Rancho's learning units provide an environment sympathetic to integration across disciplines. On paper, the learning units organize curriculum and teachers' expertise around broad skill areas: communications skills, performing skills, scientific skills, vocational skills, and cultural skills. But each of the skill areas is associated with a small subset of the unit's subject specialists (e.g., "communications skills" are the province of the English and foreign language teachers), and subject boundaries remain largely intact. The school's master schedule is designed around conventional, subject-specific course offerings. Nothing in teachers' own descriptions of these "units" suggest a concerted move toward curriculum integration, whether it be integration across academic subjects or integration of the vocational and academic topics. Administrators and teachers who have been with the school since it opened anticipated that the unit organization would provide a way to "get away from the department," though they did not specify any other organizing principle. Vocational teachers saw their distribution across the three "learning units" as a way to secure their independent interests:

> The way Rancho started out with the cross disciplines, meaning that we were divided into three units. They made sure there was one home ec teacher in one unit, another in the other unit. . . . *So whatever group is meeting, there are always enough of us to be able to express our needs from our particular area.* However, students are finding that they needed to take

> more and more of these [academic] classes. Our business department has dropped in enrollment. Industrial arts has dropped in enrollment. And it's not only us, it's the whole elective program. Music is starting all over again. Art lost a teacher this year. *So when push comes to shove*, you know. [emphasis added]

Push has indeed come to shove, and Rancho has seen the resurgence of subject specialist perspectives and structures that intensify inter-subject competition (see also Siskin, 1991). Broad questions of institutional purpose are thus obscured by pressures to maintain individual teachers and individual courses; equally obscured are capacities for curriculum policy at the district, school, and departmental level. This was true even at Oak Valley, where the district prides itself on curriculum coordination and where teachers in academic departments describe—and occasionally complain about—a powerful set of constraints on individual choice over matters of curriculum. With respect to vocational education—its conception and aims, its offerings, or its relationship to the academic program—none of these comprehensive schools could be said to devote institutional attention to overall program coherence and direction in ways that might broaden and deepen the shared sense of what is "vocational." In principle, entrepreneurial ventures or crossover assignments might provide the occasion for joint planning, foster more extensive and intensive forms of collegial exchange, and open up possibilities for experiments with an interdisciplinary curriculum. We have no evidence that they have done so in these cases. That they have not, we argue, is only partly due to the present competitive environment. Subject specialization, too, explains the nature and extent of teachers' professional relations.

Subject Status and Professional Respect

Persistent stereotypes paint high school teachers as resolutely subject-centered. Until very recently, however, there have been few efforts to penetrate that stereotype to discover the meaning that teachers attach to subject specialization. Those studies that do exist are devoted almost exclusively to the nature of subject affiliation among teachers of traditional academic subjects. Among the examples are Freema Elbaz's (1983) study of the English teacher "Sarah," Ball and Lacey's (1984) portrait of subject subcultures in four English departments; and Leslie Siskin's (1991) exploration of the academic department in comprehensive and magnet schools. Together, these closely situated accounts of subject specialism in high schools help us penetrate the stereotype. To these examples we now contribute a view of subject affiliation expressed by teachers of traditionally defined vocational curricula in our five comprehensive high schools.

The Status of Subject Specialties

The social organization of high school subjects mirrors the subject matter organization of higher education. Those fields that are organized as recognized disciplines, holding departmental status in the academy, tend to command greater institutional respect and compete more successfully for institutional resources in the high school. Departmental status and individual standing are clearly enhanced by the ability of teachers to assert coherent claims to a subject discipline, with the university serving as a powerful external referent. This is not to deny that there are local variations, responsive to local community values and priorities, or that the conventional status order is impervious to the relationships and reputations established by particular teachers in particular circumstances. On the whole, however, subject hierarchies favor those in the academic tradition (see Goodson, 1988; Goodson & Ball, 1984).

Vocational studies in the American high school have typically been treated as non-subjects. The phenomenon is not uniquely American. Australian scholar R. W. Connell (1985) describes the status dimensions of curriculum politics in this way:

> The various curricula do not sit side-by-side in schools. They exist in definite relationships with each other, often involving tension between teachers. [This is a] direct consequence of the hegemony of the competitive academic curriculum. Marginalised curricula can gain space, status, and resources in the school by redefining themselves as part of the hegemonic curriculum. . . . The pressure on a marginalised subject to do this can be quite serious. (p. 98) [7]

Connell continues, regarding the relations between academic and vocational subject specialists:

> The contempt of academic teachers registered . . . for manual arts is not an easy thing to handle; nor is the experience . . . of repeatedly seeing your best students leave your field because they would lose out academically if they continued with it. So the transformation of woodwork and metalwork into technics; cooking and sewing into domestic science, is not accidental. (pp. 98-99)

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[7] An article titled "It's not a proper subject, it's just Newsom" (Burgess, 1984; see also Burgess, 1983) reflects the same phenomenon in Britain. "Newsom" refers to the program of vocational and other studies oriented to "early school leavers," the result of recommendations contained in the 1963 Newsom Report (cited in Burgess, 1983).

Whatever pride vocational teachers display in their own work, and however they describe their contributions to students and to the society at large, most are conscious that their subject areas occupy a relatively peripheral place in the social organization of the high school. Some teachers dwell little on such matters, while others seem preoccupied with them. But the basic reality appears clear throughout. And while not every teacher described colleagues or departments in terms of status and influence, all those who did underscored the relatively disadvantaged standing of vocational subjects. A business teacher sounds a common theme when she says, "As a voc ed teacher, I feel like I'm on the bottom of the pile. Priority wise, status wise. In every respect. It's a little bit painful because you don't feel that others see the validity of what you're doing."

Departments considered outside the academic core may attempt to align themselves with recognized fields in higher education as a way of contesting the low status they occupy in the high school (see Connell, 1985). Home economics teachers in two of the schools are organized as departments of consumer/family studies. Teachers of the "practical arts" complain that art and music are politically advantaged by their "fine arts" designation. And business teachers point to what they consider an anomaly—the study of business is valued in higher education but not in high school:

> We should be right up there with all the other subjects. They should be pushing people for the business law class, the accounting class, the computer class. Instead, it's like we fight for students and every year they're telling us nobody's signing up. Even though we go out here and try to recruit them ourselves—they all go on to business majors in college, but nobody's interested in it at this level.

The success of such claims rests in part on the demonstrated parallels between the content of the secondary curriculum and that found in institutions of higher education. On the whole, the departments' efforts have been only marginally successful. Most high school business curricula, for example, retain the stamp of secretarial training and thus bear little resemblance to the coursework in economics, finance, management, or law found in a university business school.

Vocational teachers respond to subject hierarchies in part by contesting the singular standard of the *university* as that against which subject worth is properly assessed. When they identify alternative grounds on which status ought to be acknowledged, they point to the *economy*: the world of work and commerce, rather than the world of schooling. These comments from a home economics teacher typify the arguments we heard from many teachers:

> All of the nutritionists and dietitians come out of [home economics]. The fashion design industry comes out of home economics. Interior Design is our field. People have always thought of us as "stitch and stir," but when you think of the world of work, we probably represent one of the largest segments of society's jobs.

Such alternative claims for status on the basis of "real-world" considerations have gained little hold in these comprehensive high schools. The power of subject differences in bolstering or undermining teachers' professional identity is reflected in the differing degrees of confidence with which an English teacher and a home economics teacher parade their occupations in the world beyond the school. The English teacher celebrates her affiliation with English and with this English department in particular: "You know, I've had people come up and say the Oak Valley English department is the best place in the county." A home economics teacher, by contrast, feels moved to hide her subject identity:

> When I go places and people ask "What do you do?" I always say I teach high school students, I teach teenagers. I always know the next question is "What do you teach?" You know, I really don't want to tell them anymore. "Oh, Home Ec! Oh, is that still around? Oh! I didn't know they still had that!"

Individual teachers are thus pressed to establish their academic credentials. Status derives in part from the subject matter qualifications and credentials one is able to demonstrate. Those vocational teachers who completed an academic major make it a point to say so. Those who completed vocational majors assert the intellectually demanding and academically legitimate content of their training: "Home economists have a lot of scientific background." Those whose major fields have suffered reversals in the university find it difficult to locate an affiliation with a broader professional community that serves, in effect, as a political constituency. Thus, teachers who took their undergraduate degrees in home economics observe that they might be less able to do so today: the major has disappeared from several of the state's universities, its subject content abandoned or absorbed into other specialties.

The difference in status accorded to vocational and academic teachers is reflected in the terminology that one principal employs to distinguish between her vocational and academic staff: Academic teachers are "degreed," she says, while vocational teachers are "credentialed."[8] In a telling commentary on the differential status that the two groups enjoy, she adds, "I suspect that most of our teachers would view themselves as college track teachers as opposed to vocational instructors, almost viewing those terms as mutually exclusive." The difference between "teacher" to signify academics and "instructor" for vocational classes stands out.

Subject status derives not only from the perceived rigor of one's undergraduate education and professional preparation, but also from the perceived intellectual demand of course content in the secondary curriculum. According to the vocational teachers, administrators, counselors, and academic teachers consistently denigrate the cognitive or intellectual worth of vocational curricula. A drafting teacher comments, "It's taken about fifteen years for some people to actually give us any credibility that there's any intelligence in manipulative skills. Most of the time, the only intelligence [they] will accept is the reading-memory skills which are the academic skills." Implicit here is the assumption that work in the vocational arenas requires fewer intellectual resources than work in academic subjects, and that both the adults and the young people who dwell in the "shops" are lower in native abilities than those who populate academic classrooms.

Along with perceptions of intellectual substance comes a parallel set of perceptions regarding teacher workload—the intellectual, interactive, and pragmatic demands of teaching in one subject rather than another. Among the academic domains, teachers make fine (if not always well-informed) distinctions regarding one another's teaching demands, observing, for example, that the load is easier in math where the curriculum is highly standardized and evaluating student work is straightforward. Vocational teachers are generally convinced that their academic colleagues believe vocational courses to be easy on teachers as well as on students. As one home economics teacher reports, "I think a lot of them, probably many of them, feel that what we do is make cookies." Most put forth counter-arguments, cataloguing the hours of outside preparation required to organize classroom projects and demonstrations, and to assemble and maintain the necessary equipment and materials. These hours, they claim, equal or exceed the hours required to grade papers and examinations in the academic classes. Here, a home economics teacher describes the burden of preparing for foods classes compared to what she thinks is required for classes she considers textbook-based:

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[8] The vocational teachers in this school at the time of our study were all, to our knowledge, college graduates; some, at least, were graduates of established teacher education programs. However, state law governing the "designated subjects vocational education credential" permits certification of teachers who hold a high school diploma and are able to demonstrate five years of work experience related to each subject taught.

> With home ec . . . there's so much preparation. It's not like you're just opening a book: "Ok, guys, we're going to do Chapter 13 today. Let's read and discuss." Or, "These are your math problems, let's review them. Ok, this is what we're learning today, do page such and such and we'll review and do homework." I mean, that seems kind of cut and dried, where here there's so much activity and so much [material] and you have to consider your budget . . .

And a business teacher:

> I have had comments from at least one English person that she had no idea that we worked as hard as we did in the business department. She thought that all we did was go in and say "Ok, do this." And the kids did it and you took no papers home to grade.

Ironically, these comments also underscore the way in which status differences are perpetuated by the relative privacy of teachers' work. Neither the vocational nor the academic teacher whose exchanges we glimpse here has a complete and realistic grasp of one another's classroom practice or workload burdens.

In the broadest formulation of such issues, then, vocational education occupies lower status than academic study in all five of our schools. This is part of a larger discussion about the way in which the value of various subject disciplines comes to be contested in secondary education. Yet the specific relations among categorical subject status, the locally meaningful status of particular subjects in particular schools, and the realities of teachers' work remain to be worked out. For example, the advantage that generally accrues to academic teachers is diminished at Valley High School, where rapid changes in the student population have frustrated many academic teachers, led others to redefine their priorities, and reinforced the position of the vocational programs. At Oak Valley, the esteem that teachers derive from their association with a strong *school* may only intensify the status problems that accompany membership in a vocational *department*:

> I think it's a great school. It's fun to come to work. The only negative thing that I can think of—had I to do it over again, I probably would not have become a vocational ed teacher. I would have been in one of the academic subjects. . . . [T]he counselors and everybody else just say, "Well, that's an elective and it's not that important." I really was shocked to find out the status of the business department.

In sum, the status differences between vocational and academic teachers originate largely in the status hierarchy of the subject disciplines in higher education, and in the perceived intellectual demands posed by non-academic and academic fields of study in the secondary curriculum. They are sustained, too, by the value attached to the respective student clienteles with whom non-academic and academic teachers work.

Subject Status and Student Clientele

Throughout the service professions, the status of practitioners is closely linked to the status of the clients they serve. Thus, social workers as a group occupy less valued terrain than accountants. Within occupations, too, client characteristics matter in establishing prestige. Doctors who serve the affluent generally command more public deference than doctors in the employ of public hospitals. On the whole, professionals who work with children rank lower in the status hierarchy than those whose clients are adults. Work with older children confers greater prestige than work with younger ones; hence many of these teachers tell of careers improved by a move from junior high school to high school, or by the opportunity to work part-time in a community college.

Within high school teaching, still finer distinctions are made. The status order of subjects, aligned as it is with the subject hierarchy of the university, is responsive to the "college bound" or "non-college bound" status of one's students. One wins accolades by association with students who achieve success in the academic curriculum or in highly visible extracurricular activities that are also valued components of university life (e.g., athletics, band, other performing arts). Conversely, an academic teacher's standing is eroded by exclusive affiliation with low-achieving students. Talbert (1990) estimates that about one-quarter of U.S. high school teachers could be considered "tracked" by assignments to teach low-achieving students. (A still smaller percentage of teachers work exclusively with high-achieving students, teaching a steady diet of advanced placement or honors classes). Talbert's analysis of the 1984 High School & Beyond data, together with Finley's (1984) ethnographic study of teacher tracking in a large high school English department, suggests that consistent assignment to low track classes has a deleterious effect on the orientation of teachers toward their work. According to both studies, "low-track" teachers less often perceive themselves as well-supported by administrators and colleagues, are less likely to enjoy opportunities for professional growth, are less successful in the competition for instructional and organizational resources, and feel less efficacious in their work with students. The consequence, argues Talbert (1990), is to exacerbate the inequalities experienced by students.

The "teacher tracking" phenomenon affects a relatively small segment of academic teachers in these schools. It is a circumstance in which *some academic teachers* find themselves, and one which varies widely by department within schools. Those most vulnerable to "low-track" assignments are those teachers newest to the school and those held in lowest regard by administrators or department heads. The affected teachers—those who teach remedial or other low-ranking classes for half or more of their day—tend to identify more firmly with their academic departments than with similarly situated "low-track" teachers in other departments (Talbert, 1991).

However, the "low-track" phenomenon is a circumstance that well describes the *majority of vocational teachers* and, indeed, entire vocational departments or programs. In all five schools, student placement patterns concentrate "the 'low' and the 'special'" in non-academic classes. In some very real sense, these are vocational teachers without vocational students. That is, they receive few students who are clearly dedicated to a vocational course of study (see Little & Threatt, 1992). Presumably, students enthusiastic about pursuing a program of work education would soften or eliminate the stigma of external status attributions centered on academic failures. Roger Townsend compares his former life as a drafting teacher in a specialized vocational center with his present work in a comprehensive high school: "My most enjoyable teaching assignment was over at the vocational center . . . because the students had a direction. . . . I was teaching kids to become drafters and designers and engineers."

Teachers who cultivated a craft because it held genuine appeal for them, and who entered teaching in the hope of finding students with similar inclinations, now find themselves viewed not as skilled craftspeople but as caretakers of the marginal student. To vocational teachers, the link between the prestige accorded teachers and the academic standing of their students often represents a poor alignment of effort and reward. Neither their own subject matter knowledge nor their accomplishments with academically marginal students yields much recognition.

Some teachers respond with equanimity:

> But we're not the kind of program that *does* get recognition. And we don't get those star students. And I went into it knowing that's the way it is . . . . So it doesn't bother me. It does a little bit sometimes.

And others respond with resentment:

> So who gets the awards? It's the [teachers] who are glitzy or the ones who have all the top notch students, [students] who can stand up and say "Because of this teacher, I got into Stanford or I got into Yale." Well, what about people down here who every day are putting up with all of the riff-raff, who are putting up with the discipline problems, who are really working in the trenches? And I guess that's maybe where we see ourselves. We're in the trenches.

Both kinds of responses, however, confirm the link between a teacher's identity and status and those of the clientele, reinforced and perpetuated by a schooling organized to distinguish between college-bound and non-college bound students, and to bracket preparation for work from academic endeavors. Such distinctions also constrain the ways in which teachers might contribute to one another's work by engaging in cross-disciplinary ventures, teaching one another's students, or acknowledging one another's achievements.

The Satisfactions of Subject Specialism

Teachers' continued enthusiasm for teaching is bound up with opportunity to find both intellectual stimulation and emotional satisfaction in the classroom. Teachers judge their careers in part by the success they experience in getting to teach the subjects they know and like, in the schools they want, with students they consider both able and interested, among colleagues they admire. On a semester-by-semester and year-by-year basis, their pleasure in teaching is calibrated by the combination of classes configured in a five-period teaching day.

In the subtle calibration of teaching pleasure—the intricate effects woven in each configuration of students and topics, of time of day and time of year—a teacher's sheer liking for the subject looms large. To say so is not to invoke a simplistic form of the prevailing stereotype. To label high school teachers simply as "subject centered"—in implicit contrast to the "student centered" teachers who inhabit elementary classrooms—is an overstatement in many ways. Secondary teachers view with ambivalence colleagues who "know their subject" but who "can't connect with kids" or "don't really like kids." The pleasures of the subject cannot always compensate for troubles with students, or always engage students in school. Nor do subject enthusiasms and subject commitments ensure teaching that is substantively lively or pedagogically inventive. Nor, finally, do all teachers evince genuine interest in the subjects they teach, or invest equally in extending their subject expertise. (On these issues, see also Bruckerhoff, 1991). Many construct their teaching tasks in terms of supporting the general maturation of young people—"helping them become independent." Such teachers paint the subject as a medium, not an end in itself. An English teacher reports that English is an attractive subject because the study of literature engenders close relations with students: "lets you really get to know the kids."

Teachers' subject commitments and subject philosophies are thus distinctly those of the *teacher*: subject concerns are separated only with difficulty from concerns for students. Teachers typically place subject commitments amid broader conceptions of what it means to be a "teacher." Many, for example, cite involvements with one or more student activities. Business teacher Beth Elgar does so when she cites involvements with school-based management, school athletics, and the school's parent organization as evidence that her departmental colleagues are "a wonderful example of educators who care very much about students, [about] other disciplines beyond the classroom."

Nonetheless, subject enthusiasms and expertise remain a central piece of the success and satisfaction equation. When students describe teachers who have inspired them or enabled them to learn, the teacher's capacity to engage the student with the subject is one major contributor. The passion for subject that many of these high school teachers bring to their work is exemplified in their stories of deciding to teach. Math teacher Charles Ashton considers geometry his favorite course, and recalls his first introduction to it as a student:

> Geometry was the thing that really turned me on to mathematics. For me it was a critical course, and I guess I now interpret it the same . . . . It was so logical and so obvious, I thought God had given me the answer to the universe. It's kind of like listening to a Beethoven Symphony in a way, this is the way it's supposed to be.

Hannah Naftigal started out as an elementary education major and switched to home economics after a course she found inspiring: "Something clicked in me when I took that course," she recalls. "It felt like I had come home." Both of these teachers came to teaching with a commitment to the subject, and both retain a certain subject loyalty. For them and for others like them, the most attractive reform proposals would be those that intensified the pride and pleasure to be found in subject expertise.

To some extent, both Charles Ashton and Hannah Naftigal must struggle to experience the rewards of subject specialism in their comprehensive high schools. Both are affected by the ethnic, linguistic, and academic diversity of the students they teach, leaving them uncertain how to use the medium of the subject to reach all students. Both are affected by the tedium that may result from many years in the same assignment, and the urge to find intellectual stimulation. As one of Ashton's math colleagues sums it up: "You know, the 300th time you've explained side-angle-side (theorem in geometry), it's really boring." And both are sensitive to the ways in which particular teaching assignment configurations—the combination of "good" or "tough" classes in a five- or six-period day—can enlarge or depress the satisfaction they find in their subject matter.

But despite the similarities in the subject commitments that Ashton and Naftigal bring to their teaching, and despite some commonalities in the teaching environments they encounter, these two teachers differ in the opportunities each finds to derive craft pride from subject matter teaching. The weight of recent reforms combines with the traditional subject hierarchy to place the satisfactions of the mathematics teacher more readily at hand, and to render those of the home economics teacher more uncertain. Such externalities—the increase in academic graduation requirements and the corresponding restriction on electives, for example—account for part of the story. Another part is bound up with dynamics internal to the school, especially those that govern teaching assignments.

Academic Teachers: Subject Specialism and the Politics of Seniority

Nearly all the academic teachers in these five schools teach full-time in their area of specialization; they can legitimately and comfortably lay claim to being an "English teacher" or a "math teacher." This is not to say that they look upon each course in their schedule with equal satisfaction and confidence, or that they attain the same measure of success in each class (Raudenbush, Rowan, & Cheong, 1990). Nor is it to say that they place loyalty to the subject ahead of the loyalties expressed in "working with kids," though some do.

But whatever the balance of "subject" and "student" they seek, academic teachers are generally able to forge it in the context of their primary subject specialty.[9]

For academic teachers, seniority in the subject department is a major factor in determining whether the assignment one receives is a good fit with one's preparation and preferences; among these academic teachers, seniority and other related factors (e.g., formal preparation, experience with grade or level) are more likely to operate than observed teaching performance, departmental policies regarding rotation or "best fit," or administrative expedience. To varying degrees, teachers compete over what Finley (1984) termed "the good schedule," one that represents, from the teacher's perspective, a desirable fit with favored subjects and students. Status considerations figure prominently in Finley's analysis; teachers earn prestige when they teach subjects and students highly valued by the larger institution and the community, and their prestige is diminished by teaching low-achieving students and remedial content. Interviews with teachers in our five schools suggest a more diverse array of explanations in which the status of courses and students may be offset by other personal predilections and commitments. In any event, the seniority system that prevails in many, perhaps most, departments is the major limitation on teachers' efforts to get classes in which they anticipate the greatest success and satisfaction.

The dynamics of the seniority system have perhaps best been uncovered by Barbara Neufeld (1984), who finds teachers able to describe its features and consequences in considerable detail: how long it takes to get seniority; the maneuvering within a "personalized hierarchy"; the appeals to fairness that help weaken the power of seniority; the frustrations of "waiting out your turn;" and the disposition to "lock in" a good course, once in possession. Seniority for purposes of instructional assignment operates systematically but informally. That is, seniority provisions in formally bargained contracts affect teacher assignment to schools by governing conditions surrounding transfer. To our knowledge, in no case in our study were there explicit provisions for the use of seniority to control assignments at the individual class or department level. Nonetheless, the seniority factor was evident in the master schedules. The impact on individual teachers could be substantial. In each of our five schools, there are departments in which even the most junior teachers have fifteen years or more of teaching experience: A long wait to a "good fit."

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[9] Determining whether someone is "teaching in the subject field" is somewhat problematic, especially in the academic areas. Formal credentials do not account for genuinely felt subject expertise or subject preferences. The social studies teacher who has taught world history for several years can be put off-balance by an assignment to pick up two sections of economics. Through credential "endorsements" teachers stay "legal" but may find themselves teaching out of their depth. Gehrke and Sheffield (1985) have speculated that the core academic subjects are vulnerable as "the dumping ground of teacher reassignment."

An English department and a science department in a single school represent contrast cases in the use of seniority to decide teacher assignments. The contrasts are evident in the master schedule and in interviews with teachers and the principal. In the English department, the effects of seniority, while not completely absent, are greatly muted by the presence of a department policy calling for the regular rotation of remedial courses, and for widely distributed responsibility for the department's course offerings. The former chair offers this explanation:

> I think the school is pretty much philosophically doing what it says it should do and that's provide the college bound track to most of the students. I know that we in the English department feel very strongly that our objective is to get the kid out of that remedial track and get him into the regular track and we talk about it all the time. When I was department chair, I said that I think that those are the kids that need the teacher with the most energy and the most enthusiasm and so we're just going to rotate it. And everybody in the department will be involved in those courses and that's the way it goes.

The rotational principle is visible in the master schedule; only one of the department's twenty-five regular teachers shows a heavy load of remedial classes two years in a row. [This contrasts with Finley's English department, of equal size, in which nine teachers were consistently assigned to low-track classes]. In addition, the chair makes a well-publicized effort to grant each teacher his or her first choice class. And of the department's twenty-five teachers, five dominate the honors and AP classes (accounting for all such sections in 1989-1990, and ten of thirteen sections in 1990-1991). In no case, however, do honors classes make up a teacher's entire teaching load.[10]

In the science department, a different picture emerges. The chair of this department, too, maintains that the department bears a responsibility toward low-achieving students. However, there is no equivalent norm for rotating the assignment of remedial classes among teachers. In a three-year period, the chair once acquiesced to pressure from the administration to take a turn in teaching a basic science course, but the experiment was short-lived (one section taught once). He and other experienced teachers consistently dominated the advanced courses and those courses enrolling juniors and seniors. The department's newest members teach full loads of the lowest level basic science, life science, and physical science classes. The seniority dynamics also disadvantage the new teachers in the allocation of classroom space and other material resources; the new teachers find their teaching assignments even more burdensome when they must travel from classroom to classroom with "science on a cart."

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[10] The department chairs in this English department have consistently taught two or three sections of advanced classes. It is not clear how to explain the pattern in this instance, except to say that it does not correspond to teacher seniority. It could be seen as a "perk" of the chair, but such an explanation is complicated by the fact that this department has a reputation for promoting strong curricular leaders and strong teachers for that position. Finley (1984) observes that the teachers who controlled the advanced classes justified their assignments on the basis of their superior expertise, while the teachers who were excluded from them were skeptical. In this instance, we have little basis on which to dispute the chair's own interpretation.

Academic teachers, then, are very likely to be teaching within their subject specialization, but less certain to be matched consistently with courses and students with which they feel most efficacious. Career trajectories and fluctuations are linked to what teachers individually and collectively come to view as "the good schedule." The good schedule, in turn, is shaped by the demands, opportunities, and rewards presented both by the subject and the students. This is one backdrop against which we might assess the prospects for integrating vocational and academic studies—or for reinventing the curriculum in other ways.

Vocational Teachers: Subject Specialism and the Politics of Electives

The opportunities for vocational teachers to demonstrate their subject expertise and indulge their subject-related enthusiasms are powerfully constrained by two related factors in comprehensive high schools: (1) the decline of enrollment in non-academic electives following shifts in the high school graduation requirements; and (2) student placement practices that populate vocational classes with students whom teachers see less as "work oriented" than as "academically marginal."

The pattern across the five schools shows a steady record of decline in total numbers and in full-time assignment of vocational specialists. Most stable have been the home economics (or consumer/family studies) and business departments, while the trades-oriented industrial arts departments have recorded steady losses. Increasingly, teachers preserve full-time teaching assignments by teaching out of their primary subject area, or by converting traditional courses to serve the purposes of basic skills instruction in academic areas. Departments maintain teaching positions by developing a marketable combination of "vocational" courses and courses that might be termed "personal interest electives." Common among the vocational teachers is a pattern of survival-oriented entrepreneurialism—"hustling" and "scrounging"—by which individual teachers retain sufficient resources to carve out a full-time schedule of courses. Some take considerable pride in the programs they have built. An example is Josephine Raney at Valley High School, who has developed a program of work preparation in industrial cleaning for special education students.

The decline in teaching staff is matched by a decline in the number of course offerings, and a shift in the types of courses available. At the beginning of our study, all five of the schools offered fewer vocational courses than their staffing permitted. That is, teachers whose background and experience lay in industrial arts, business, agriculture, or home economics were teaching fewer than five periods a day in those areas. Over the three-year period, all schools reduced the total number of offerings still further. Thus, the range of course offerings that would communicate a subject specialty and would provide "like-minded" colleagues for teachers is missing. Increasingly, teachers confront a "compressed curriculum" that bears little resemblance to the rich program in which they once participated and from which they draw their professional identity. Wood shop teacher Ed Gordon describes the changes and their effect on his teaching assignments:

> EG: They've taken shops like the high school metal shop—that's a weight room for the football team. They closed the door on the wood shop. Now they have one class of stage craft. I don't even think drafting's offered anymore.
>
> Interviewer: What are you going to do?
>
> EG: Well, I've got probably twelve years more. I can teach art. I'm teaching art this year for the first time. I still love wood and I believe in it. But I'll hang on.

Ed Gordon is resigned to "hanging on," but one cannot help but gain the impression of curricula steadily weakened and careers suddenly derailed. Not all vocational teachers respond with the same equanimity. Greg Zeller, some years younger than Gordon and Hunter, resists the prospect of "going backwards" in his own career. When his small engines program was cut, he entered aggressively into a district-level project to develop an applied technology sequence. From his point of view, applied technology constituted a move to link vocational and academic studies and a move consistent with his own career interests. It is not clear whether his efforts will bear fruit at the school:

> [Applied Technology] is something I'm interested in teaching, but I'm not also interested in bucking the system along the way. [W]hat I see is one of the assistant principals already saying "Well, you know, we're not having that program here." So, if those roadblocks keep coming at me, I'm not going to go backwards.

Zeller tells us that if his plans for the Applied Technology program are thwarted he may leave teaching altogether. Short of that, he implies, he will curtail the energy he devotes to his teaching. And he will be more skeptical about new proposals in the future.

Subject identities, and the teaching priorities to which they are tied, remain a fundamental part of professional community for most of these teachers. The subject designations of departments count in the competition for resources; and subject expertise counts in the view teachers have of one another. The opportunities for colleagueship among teachers, and for the reconstruction of purposes and programs within schools, reside largely in the resources of subject expertise. And teachers' subject affiliations are given prominence by the departmental organization of the high school.

Departments

Departments linked to established subject matter disciplines are a significant organizational feature in these comprehensive high schools and the primary frame of reference for most teachers.[11] Despite assaults on segmented curricula and departmental organization, subject matter departments continue to dominate the social and political organization of the secondary schools.[12] These comprehensive high schools are no exception. At Oak Valley, Onyx Ridge, Valley, and Esperanza, subject matter affiliations are rendered organizationally salient through a formal departmental structure; at Rancho, efforts to build and sustain an alternative structure organized around "learning units" are gradually giving way to restored subject matter boundaries (see Siskin, 1991). Among the five schools, no fewer than eighty-six percent and as many as ninety-seven percent of regular classroom teachers were teaching full time in a single subject department. In recent experiments to re-align vocational and academic curricula, schools preserve subject matter groupings even while organizing new multidisciplinary "houses" or "career clusters." To some extent, they are driven by external circumstances to do so. The state's curriculum frameworks are subject-specific, as are testing protocols, state-approved text books, university admission requirements, and regulations governing teacher licensure and assignment.

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[11] Most studies of high schools have concentrated on school-level analysis, with selected illustrations of individuals' perspectives and experiences (e.g., Boyer, 1983; Powell, Farrar, & Cohen, 1985; Sizer, 1984). In recent exceptions, Sandholtz (1989) has explored the variations perceived "inducements to teach" in four departments, and Siskin (1991) has framed her study of "the academic department" to incorporate elements of department cohesion, status, subject-matter and pedagogical orientation(s); she also examines the role of the department head.

[12] Andy Hargreaves (1988; also Hargreaves & Macmillan, 1992) is among those who have delineated some of the deleterious aspects of subject specialization, while Sizer's (1984, 1992) widely publicized proposals for restructuring the high school would abandon or seriously weaken departmental boundaries.

Given the dominant subject-matter organization of high schools, departments represent a naturally occurring ground for teachers' interactions and satisfactions (or frustrations). Under present configurations, the department is the most prominent domain of potential interdependence among teachers. In seeking meaningful arenas for interaction and interdependence among teachers who work largely as "independent artisans," Huberman (in press) argues, "I would rather look to the department [than the school] as the unit of collaborative planning and execution in a secondary school. . . . This is where people have concrete things to tell one another and concrete instructional help to provide one another—where the contexts of instruction actually overlap" (ms. p. 64).

The relation between vocational and academic teachers is thus inescapably linked to the history of subject organization in the high schools. Our survey data record the reported levels of departmental identification across the five schools. On survey measures, all schools report moderate to high levels of departmental affiliation. In interviews, too, teachers make the department a prominent part of the stories they tell. They do so even at Rancho, where the faculty has made a concerted effort to displace departmental organization. Across all five schools, departments and subject affiliation are meaningful components of teachers' work lives. One measure of the competitive strength of vocational education, then, is the individual and collective strength of vocational departments.

Departments define themselves, and are defined by others, as "strong" or "weak." The definitions have multiple referents. When the chair of the industrial arts department judges the department to be "very strong," he is referring to the members' long-standing friendships and to their shared support for the non-academic student. When an administrator judges the same department to be "weak," he is recording his criticism of the department's level of initiative in program innovation. That is, internal and external judgments do not always coincide; nor do insiders and outsiders, teachers and administrators, always assess the salient elements of "strength" in the same way. For some vocational teachers, congenial relations among peers are sufficient to outweigh low institutional prestige; and for some teachers in academic departments, being resource rich does not compensate for the absence of intellectual and professional accord. Overall, however, some conditions could be said to contribute to department strength, and others to erode it. Strong departments, seen from an organizational perspective, are more likely to boast a full complement of subject specialists, a subsidized and meaningful department head position, a budget adequate to encompass both program development and professional development, a coherent and collective stance toward curriculum policy, and norms supportive of collective problem solving, innovation, and intellectual growth (see Figure 1).

Figure 1
Conditions of Departmental Strength and Weakness

STRENGTHENING CONDITIONS	WEAKENING CONDITIONS
Composition and Leadership	**Composition and Leadership**
Full-time membership	Part-time teachers and split assignments
Extensive subject matter expertise	Weak or uneven subject matter background
Designated department head	Absence of formal leadership
Instructional leadership by chair	Administrative view of chair
Resource Adequacy	**Resource Adequacy**
Collective pursuit of resources	Individualistic pursuit of resources
Common space	No common space
Adequate time and regular meetings	Inadequate time and infrequent meetings
Departmental Ethos	**Departmental Ethos**
Known and shared beliefs	Polarized beliefs
Open discussion of practice	Protective or private view of practice
Joint work on curriculum and assessment	Individual work on curriculum and assessment
Teaching assignments rotated	Teaching assignments based on seniority
Department as instrument of policy	Department as administrative convenience

Department Composition

One of the major contributors to departmental "strength" among the four English departments studied by Ball and Lacey (1984) was full-time participation by a cadre of subject specialists. Most academic departments in our five schools were able to preserve the full-time instructional services of their subject experts.[13] That is, most teachers of math, science, social studies, and English taught full-time assignments within their subject specialty.

Vocational teachers, especially those with general secondary credentials, were more vulnerable to assignments out of their primary field. Sometimes those assignments require teaching as many as four periods a day in another subject (often math or science); in other instances, they require traveling between schools. In 1989-1990, for example, twenty-one teachers in the five schools (exclusive of coaches) were assigned to teach in two departments. Of these, eight teachers (or 38%) were from vocational subjects. An additional three vocational teachers maintained a full-time assignment in their specialty by traveling between two schools.

In a heavily departmentalized structure, to lose subject specialists from a department is to weaken the social cohesion and programmatic unity needed to compete for resources; similarly, to admit to the department full- or part-time members who are not subject specialists is to weaken the department's professional standing. One might envision an alternative configuration in which a group's competitive standing was contingent upon interdisciplinary rather than single-subject strength. Such a shift cannot be managed on a person-by-person, subject-by-subject, or department-by-department basis, however. It requires a uniform shift in the principle of organization—for example, to a house or career cluster model. Rancho High School did attempt a variant of a house configuration, but competition over resources within "learning units" remained tied to subject specialties.

Among academic departments, a shift in the composition of the department membership (more part-time teachers, for example) may occur independent of shifts in department size. In a case study report titled, "Are core subjects becoming a dumping ground for reassigned high school teachers?," Gehrke and Sheffield (1985) observe academic courses are maintained through "reassignment," while courses requiring special technical skill (e.g., instrumental music, wood shop) are cut from the school program altogether when resources decline. In our five schools, we found a similar phenomenon of teaching assignment following the shift in high school graduation requirements. In the wake of such developments, remaining vocational teachers, especially in the industrial arts, may become vocational generalists (e.g., teaching isolated sections of wood, metal, and drafting). Thus, academic departments maintain or increase their size but lose their claim to subject expertise, while vocational departments lose both size and specialist depth. Each of the five schools has at least one one-person vocational department. At Oak Valley, the largest of the schools, the largest vocational department numbers six, while the four "core" academic departments range in size from fourteen to twenty-five. At the remaining four schools, the maximum size of the vocational departments is four; the maximum size of academic departments in the same schools is fourteen. And as vocational departments dwindle in size, little remains to link teachers together. A home economics teacher at Valley says,

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[13] Most of the "drain" of subject expertise from academic departments in these California schools occurs not in the form of cross-subject teaching, but in the form of commitments to the school's athletic program. Those teachers who coach often spend one period of the instructional day teaching in the physical education department.

> As much as I would like to see the department growing, it seems to be diminishing. We really don't have a full-time teacher. We just have the two courses. Possibly [if we had] a teacher and a half, that would give you somebody to share your ideas, communicate with, that type of thing . . . . It would be different having somebody in the school, actually sharing what's happening.

The school's only business teacher compares her present isolation with past circumstances, in which she could count on others for stimulation: "I had three other teachers at [my previous school] and we could bounce off each other. Here I don't really have anyone yet. Because I'm the only business teacher, you know."

The programmatic strength of a department thus begins with its membership: the pool of knowledge and experience available in the teachers who make up the department's roster. In Oak Valley's English department, all teachers are full-time members of the department who bring to their work extensive formal preparation in English. All members of the department are available to devote the majority of their time and energy to the teaching of English and the refinement of the English curriculum. The department's policy of encouraging teachers to tackle a new course every couple of years has resulted in a faculty with collective ability to teach widely in the department's curriculum. In the industrial arts department, by contrast, only one of six teachers continues to teach a full-time load in his main area of expertise. The teachers pursue very separate specialties, ranging from electronics to auto and metal work, adding to the difficulty of relying on flexibility in staffing to achieve curriculum depth and continuity.

Department Leadership

The power of departments in secondary schools is enhanced by a formal provision for department leadership, and is correspondingly diminished when no such provision is made. Two of the three districts that serve as home to our five schools support the position of department head; the position is potentially one of substantial organizational and collegial leadership in both districts (though it is not always enacted in this way). The third district, in which Esperanza and Rancho are located, eliminated formal support for the department heads several years ago as a "cost-cutting" measure. But even within the former two districts, resources to support departmental leadership are not uniformly distributed and do not go uncontested. An industrial arts teacher at Oak Valley typifies comments we heard frequently regarding the claim of the vocational departments on resources for department leadership:

> A lot of people think because we have [only] six people, and because our department doesn't have papers to grade, that the department chairman doesn't have the load that the other department chairs do. But if you look at all the equipment that we have to make sure that it stays [in repair], pollution, and this is one of the things, that you can't just come in and write a work order and expect it to happen. You've got to follow through. So, we do have to stay on top of it.

An important influence on the department's professional and organizational presence is the stance assumed by the department chair. In Oak Valley's English department, three successive chairs of the English department sound a common theme—the role of the chair is to sustain both the coherence of the curriculum and the cooperative spirit among teachers. Teachers compete for the position of chair on the basis of substantive expertise and their ability to lead a group of respected experts. (There were three internal candidates for the position when it last came vacant.) The present chair of the industrial arts department, by contrast, describes a rotation in which "we all take our turn in the barrel." The main job of the chair in that department is to assure appropriate and timely expenditures of the equipment budget. The chair of the business department reports that her position is "strictly a liaison with administration." A generally permissive or timid stance toward department leadership may prove detrimental to any department, but more so to those without other forceful advocates in the organization.

Competition for Resources

Departments in the same school may differ dramatically in the material resources they command: space, equipment, up-to-date texts, supplemental materials, professional development monies, and the like. To some extent, the differences are felt both within non-academic and academic arenas. As Siskin (1991) relates, for example, science departments are typically favored in the resource competition in ways that social studies departments are not. She traces the disparities between these academic departments in part to the external prestige of science, the "tightness" of scientific paradigms compared to those of social studies fields, the perceived legitimacy of claims regarding laboratory facilities and materials, and the relative scarcity of science teachers. Nonetheless, she concludes,

> The status differences among these academic departments, however, are small, and often lie not in the automatic link to the discipline, but in the cultivated links to the administrators. The most intriguing glimpses of consequential differences in disciplinary status come from the departments not studied here, such as Industrial Arts. (pp. 207-208)

Siskin speculates that the most dramatic status and resource differences are to be found between the academic and non-academic fields (e.g., vocational education, the arts, and special education). Her speculations are borne out in our interviews with the vocational teachers who are united in their view that school's discretionary resources go most readily to develop academic programs. One industrial arts teacher laments,

> We sometimes feel like we're second class citizens, probably because the English department, the math department, or social studies department, or science department can yell for more money and they seem to get more money or more of the pie than their fair share, plus some.

The science chair at the same school confirms the status differential, observing that the math and science departments are rich in resources while the non-academic departments routinely get less. When the math and science departments elected not to compete for School Improvement Program monies, the chair anticipated some relief for the non-academic departments: "We had gotten the lion's share of the funding. . . . With the two departments pulling out, it at least gave the other departments a shot at getting their dipper in the kettle. . . . It gave the art department and some of those other areas a far better chance because the two biggest automatic point gatherers were not in the game."

The political clout of departments rests not only on the external referent of a legitimate "field," but also on the closely cultivated ties between teachers or department heads and administrators. In these schools, administrators express respect for the broadly vocational aspects of secondary schooling coupled with a general lack of faith in the present worth or adaptability of traditional vocational education. Arnold Bennett, Principal at Oak Valley, attributes the declining enrollment in industrial arts to a failure of innovation by vocational teachers: "There's a major problem in our industrial arts areas. . . . I think so they can get kids into it who will be (looking toward) the state university system, they're going to need to adapt some things to sell their product better to this population." Elaine Eddy at Onyx Ridge echoes him: "I have to tell you, I'm very critical of the industrial arts programs. I think as a whole the teachers have put their heads in the sand and let the program die, and they blame the kids [and not] the program that they're offering."

But teachers who innovate may place demands on scarce internal resources. The traditional drafting teacher who "keeps up with the trends" is likely to propose a computer-based program requiring a costly array of computer equipment and software. The auto shop teacher at Oak Valley inventories his extensive efforts to remain current with changes in automobile technology, ranging from the computerization of various car systems to the refinements in smog testing. Yet the equipment that he is learning to use could not conceivably be purchased with the department's meager budget. Meanwhile, donations of state-of-the-art computer equipment find their way to the math department.

There is some reason to believe that "innovation" and "keeping up with the trends" in vocational education would be a mixed blessing in the eyes of administrators whose main priorities lie elsewhere. Conflict over "innovation priorities" is evident in the recent initiatives in technology at Oak Valley. To forge new ties across departments, and to enhance further the school's strong reputation with the community, Bennett has formed a cross-departmental committee on technology. This committee is highly visible, co-chaired by a young, dynamic English teacher and an influential science teacher. The committee has sponsored two days of schoolwide inservice training on microcomputers, and has developed recommendations for broadening the use of computer technology across the curriculum. Independent of this committee, a member of the industrial arts department has been working at the district level on a proposal to introduce courses in applied technology and principles of technology in the middle school and high school curricula. The proposed courses did secure the approval of Oak Valley's department heads during 1989-1990, but only after the heads were assured that such "approval" was merely a step in the district's overall course development process and did not necessarily mean the courses would be offered at Oak Valley in the near future. When we asked how these two technology initiatives related to one another, if at all, the principal acknowledged the potential competition between the vocational and academic arenas over resources for technology: "Well, we're going to get into some haggling on the funding process of this thing."

In sum, departmental strength is reflected in (and maintained by) successful claims to valued resources. Among the forces that contribute to a departmental presence in a school, neither department size nor subject prestige weighs on the side of the vocational departments. With regard to control over material resources, there is little doubt that academic departments reign in these five schools. But departmental presence can also be felt by the intellectual and moral stance that a department adopts, individually and collectively, toward the work of teaching.

Departmental Ethos and Boundaries

Departments provide very different kinds of collegial homes for the teachers who inhabit them. A small number of prior studies offer quite widely varying portraits of departments and department leadership. The teachers and department heads interviewed by Johnson (1990) claim that department members are engaged extensively in joint activity on matters of curriculum and instruction. But in his study of staff networks in two midwestern high schools, Cusick (1982) concluded that departments were principally instruments of administrative convenience. They offered neither pressure nor support for teachers to adopt a coherent stance toward curriculum and instruction; indeed, they had little to do with the intellectual and professional lives of the teachers assigned to them. Both of these portraits come to life again in our own data (see also Bruckerhoff, 1991). Teachers and administrators in these schools readily and vividly define individual departments by their characteristic stance toward subject, students, and schooling. Here, for example, an English teacher and a social studies teacher who teach in the same school present drastically different portraits of their respective departments:

> English teacher: I came here [to interview] and I was really impressed right away with the teachers that were here in the English department. . . . They were really energetic and involved in what they were doing . . . sharing ideas about what they were doing in class, what was working, showing students' work. . . . It's very cooperative.

> Social Studies teacher: There is no agreement in the department on what is important, no agreement on standards, no agreement on priorities. The faculty is out there floating. People are just putting in time.

In the English department office, one finds a group picture prominently displayed on the wall, and teacher traffic is heavy throughout the day. Conversations among teachers are frequent and lively. The social studies office, located nearby, is nearly empty of teacher traffic, and there is nothing in the physical environment that would suggest close personal or professional relations among the department's members. Of course, there is no necessary relation between personal "closeness" in a department and a disposition to act collectively in regard to teaching. Nonetheless, social cohesion may dispose a department more readily to cooperate on educational pursuits when the occasion arises. The English department prides itself on being open; it was not unusual to find substitute teachers gravitating to the English department to have lunch, regardless of what subject they are "covering" for the day. The department members also welcomed members of our research team, making time for us to have informal conversations and making room for us at the lunch table. Student teachers and other teachers new to the department commented on the warm and cooperative environment they discovered. This large English department promotes a sense of belonging among its immediate members, but its boundaries remain permeable. Other departments, including social studies, preserved a more "formal" stance toward strangers and newcomers, as well as toward colleagues from neighboring departments.

Oak Valley's English department represents perhaps the clearest case of a department dedicated to a coherent program of studies to which most or all teachers contribute. Individual autonomy exists within the context of collective agreements regarding curriculum emphasis and, to a lesser extent, instructional preferences. The curriculum of the English department suggests a collectively formulated program. Teaching assignments traced over a three-year period reveal a departmental commitment to displace conventional patterns of individual course "ownership" with teachers' widespread knowledge of and participation in the broader curriculum. The chair explains:

> Chair: We started something a couple of years ago where every teacher is, not forced, but encouraged to pick up a new prep every other year. And the idea behind that one is so that courses didn't become so specialized to teachers that if a teacher were to leave the department and all of a sudden the course, you know somebody's stuck teaching it and doesn't really know how it's supposed to go and all that. [We] tried to remove the idea of

> special interest classes and say, "Look if it's in our department then it's worth being taught and so let's have people who can teach it."
>
> Interviewer: So there's this sense of a departmental curriculum or set of course offerings, not *your* course in Shakespearean Literature . . .
>
> Chair: Definitely.

Course offerings, staffing patterns, and course coordination all serve as policy mechanisms that may spur or impede collaborative activity within or across departments. Despite the size of Oak Valley's English department, teachers attain a remarkable familiarity with one another's teaching and a remarkable level of genuine agreement about their departmental priorities. They are supported in this achievement by their inclination to see themselves as engaged in a common task ("college preparation"), to underplay their subspecialties and concentrate on commonalities in the broader discipline, and to promote strong curricular leadership from within their own ranks.

In some respects, the differences between strong and weak departments appear to be quite independent of subject matter. The English department at Oak Valley is a powerhouse; the same subject department at Esperanza is badly polarized. Our investigations of life inside departments over the past three years have led us to believe that school-level measures of "departmentalization" and "collegiality" are likely to be misleading, or at least that they offer an incomplete picture of the various bases of colleagueship in a secondary school. Within the same school, we find some departments that are powerful instruments of curricular policy and other departments that provide no more than an administrative label for a loose assemblage of individuals. (Indeed, reducing the wide range of variation and increasing the normative power of collegiality would appear to be a crucial element of a reform strategy.) Vocational departments appear neither more nor less inclined than academic departments to take a collective stand on curricular priorities, or to supply one another with professional support.

Nonetheless, non-academic and academic departments are positioned differently to act as instruments of curriculum policy and as guarantors of staffing and program configurations. At Oak Valley, for example, the consumer/family studies department bears a certain resemblance to the English department in its effort to achieve a certain curricular coherence. The department's course offerings reflect a decision to employ state funds to develop a set of occupationally oriented programs in restaurant management, early childhood education, and fashion merchandising. But unlike the English department, where teachers set out to learn courses across the department's curriculum, and where teacher turnover would have only marginal impact on the course offerings or core content, the consumer/family studies department relies on individually developed one-person programs. It is thereby less flexible in its options for staffing, and its program continuity is vulnerable to teacher turnover. (Indeed, the fashion merchandising program was abandoned when the teacher who organized it left the school.) In the industrial arts department, too, each of six teachers pursues a single specialty. Faced with enrollment declines, the department has devoted resources to help individual teachers bolster alternative courses, but has made no collective moves to reconsider and consolidate its curricular priorities.

There remain, then, certain systematic differences between vocational and academic departments. That is, there are forces that tend more often than not to weaken vocational departments relative to academic departments. Across all five schools, academic departments appear stronger than vocational departments in the overall competition for symbolic, human, and material resources. In schools where academic achievement and preparation for college attract the greatest concentration of symbolic and material resources, vocational departments are seen as backwaters. Vocational teachers are more vulnerable to split assignments than are academic departments, and more likely to travel between schools. Their motivation and their opportunity for intensive participation in a department are both thereby eroded. Vocational departments are less able to act as a guarantor of preferred teaching assignments, breadth and depth in course offerings, and full-time department membership. Under such conditions, these departments present a relatively weak platform on which to construct a reform agenda centered on the integration of vocational and academic studies.

CONCLUSION

Three aspects of professional community underscore and sustain the "two worlds" of non-academic and academic teachers. Each is a potential guarantor of the status quo, or a potential lever of change. The first is a generalized pattern of patchwork involvement among colleagues, and the collegial dynamic fostered by competition over student enrollment and other resources. The second is the legacy of subject specialization, and the conditions surrounding subject expertise and subject status. The last, and perhaps most significant, is the departmental organization of the high school, and the boundaries it constructs in the conceptualization of purpose, curriculum, pedagogy, and colleagueship.

In increasing numbers of local communities, one finds a creeping unease about the failures of secondary schooling. Some proposed remedies, to be sure, tend in the direction of doing more of the same. They intensify pressures on teachers and students by specifying more time, more homework, more tests, and the like. Other remedies require a re-examination of fundamental purposes, practices, and structures. They call into question aspects of schooling on which secondary teachers' identities and community have been based, among them subject specialism, age-grading, and differentiated curricula. It is within this emerging field of debate that one best locates problems in the integration of vocational and academic education.

We undertook this analysis of teachers' professional community (or more precisely, communities) in part to discover on what basis such integration of purposes and subjects might be founded. We find the language of subject specialisms dominant, and the structure of departments firmly in place. Subject affiliation and departmental membership powerfully define professional community in these comprehensive high schools. A few teachers and administrators envision more permeable boundaries between subjects, more meaningful ties across subject areas, and more sensible relations between school and work. Among the academic teachers, however, there are few examples of cross-subject curriculum planning. Initiatives that could properly be judged interdisciplinary were simply not present in these schools on any meaningful scale. Among the vocational teachers, the assault on subject boundaries takes the form of campaigns to win academic credit for vocational courses. Cross-department staffing between vocational and academic departments (as when industrial arts teaches are assigned to teach basic math) tends to be seen as an accommodation to existing course demand, rather than pursuit of a policy that favors cross-disciplinary work or that seeks a more robust integration of vocational and academic perspectives. Fully integrative models are not in evidence here (see Grubb et al., 1991; Simon, Dippo, & Schenke, 1991).

Those who would venture seriously to alter the character of secondary schooling, in the manner undertaken by Sizer's (1992) fictional Franklin High School, must contend not only with long-standing assumptions (or stereotypes) about students and learning, but also with long-standing features of teaching as an occupational and organizational community. Collegial exchange is both more frequent and varied than outsiders might imagine, and less concentrated and consequential than teachers would require to re-invent their work and their workplace. The departmentalization and subject affiliations that remain powerful facts of life in secondary schools are sustained not only by the dispositions of individuals but also by a range of internal policies and practices and by powerful externalities. Ironically, the very resources that give some departments their strength may operate as obstacles to efforts to create more permeable boundaries among subject disciplines. That is, a department with a full-time cadre of subject specialists and well-established curricular policies might also be so committed to subject integrity that it would act as a barrier to integration. And among the external forces, for example, university admission requirements exercise what Norton Grubb (personal communication) terms a "chilling effect" on innovation in the secondary curriculum. Teachers might be induced to modify their subject orientations and commitments if the university were to require evidence that students had participated in cross-disciplinary coursework, or had engaged in projects that required integrating their knowledge from multiple disciplines.

Reform proposals typically—and perhaps necessarily— underestimate the forces of inertia. In this instance, proposals to integrate vocational and academic education display scant analysis of the ways in which traditional structures of schooling and cultures of teaching reinforce the boundaries between purposes, programs, and personnel. Ironically, then, such proposals also offer scant guidance for who would remedy the divisions between the vocational and the academic. At the same time, such divisions are fundamentally at odds with values central to public education, and it is in the tensions surrounding such value commitments that the possibilities for change reside. In each of these schools and perhaps in the many others like them, the multiplicity of perspectives and practices offer more resources for reform than we have so far been able to tap. It is in the interests of such reform, and in the search for its resources, that we have constructed this portrait of teachers occupying two worlds.

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APPENDIX A
FIVE SCHOOLS[1]

Our inquiry into the work lives of vocational teachers is part of a larger investigation into the multiple contexts that shape secondary teaching. Over a three-year period, we made repeated visits to sixteen public and independent schools in two states (California and Michigan). The schools vary in size from fewer than two-hundred students to nearly three thousand. During those visits, we interviewed administrators, department heads, teachers, and students. We observed in classrooms and staffrooms, in department offices, lunchrooms, workrooms, and hallways. Annual surveys were distributed to all teachers in each site. These surveys replicate certain items employed in previous large-scale national studies (High School & Beyond; NELS 88), and thus link parts of this small study to a much larger database on high school teachers and students.

The five comprehensive high schools are alike in placing vocationalism among a broad range of goals and interests they pursue through their curriculum, extracurricular offerings, and special programs. In other respects, these schools have important and distinct differences that directly or indirectly affect the value attached to vocational purposes and programs, and the conditions under which vocational and academic teachers work. The schools involve us in three districts, each with its own history as a professional environment for teachers, and each with its characteristic stance toward vocational education. The schools vary in the size and composition of their student population and teaching staff; they vary, too, in the special issues and problems that they confront, the reputation they enjoy in the district and community, the professional relationships that dominate the school culture, and the resources for (or constraints on) program development. The descriptions that follow highlight the main "story" of each school, seen from the perspective of vocational purposes, programs, and personnel.

Oak Valley High School

At suburban Oak Valley High School, the largest school in the sample, the administration and the academic subject teachers pride themselves on the school's reputation for academic excellence and its prowess in extracurricular activities. The school has recently been singled out for national recognition. One of three high schools in a growing district, Oak Valley is surrounded by hillsides on which very large homes spring up in a virtual frenzy of new construction.

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[1] The names of all persons, schools, and communities have been changed to preserve confidentiality and anonymity.

Despite pressures toward a predominantly academic curriculum, the school has been able until very recently to maintain a reasonably large full-time teaching staff in four vocational departments. In 1988-1989, eighteen of the school's 136 teachers (13%) worked in designated vocational programs in four departments (industrial arts, vocational agriculture, consumer/family studies, and business). Of those, only two were less than full-time. But the numbers are now dwindling. By 1990-1991, four positions had been eliminated and three of the remaining teachers were teaching part-time in other departments or working on special assignments at the school level. The available program in industrial arts is steadily diminishing, while immediately outside the school grounds the local economy thrives on construction trades, architecture, and engineering.

The central issue in this site is the relatively narrow view of vocationalism and the relatively low status of traditional vocational preparation in a school and a community that take pride in a college bound population. As traditional programs diminish in this school, the following question might be posed: Are we witnessing decline or transition? The school's new principal lists "career infusion across the curriculum" among his aims. It is not yet clear what the principal might mean by such a phrase, and less clear how teachers will come to interpret it. It does seem clear that the principal is likely to turn first to the counseling staff and to enthusiasts among the academic teachers to develop the agenda.

Onyx Ridge High School

Onyx Ridge High School, less than half the size of Oak Valley and with a more diverse student population, also emphasizes its academic mission and college orientation. When the school opened in 1982-1983, teachers were recruited here and had a voice in designing the facilities and program. Academic teachers consider themselves the "creme de la creme" of the district's workforce, and consider the school to be a highly desirable assignment, a place they would be pleased to stay until retirement.

The school is located in an affluent, mostly white community on the edge of a large urban district. Pressures on the school come largely from parents in the immediate neighborhood. Minority students represent thirty-seven percent of the student population, but most are transported from distant parts of the city. These students represent ethnic but not linguistic diversity (fewer than 5% are classified LEP, or limited-English proficient). Students who arrive by bus constituted about one-fifth of the student population in the first year of our study, and about one-quarter by the third year.

Five of the school's fifty-six teachers are distributed across three vocational "departments," although numbers this small make it difficult to detect a department in any meaningful sense. Two teachers hold full-time positions in a consumer/family studies department that includes a state-funded Regional Occupation Program (ROP) in child care. This school, like Oak Valley, incorporates a preschool on campus. Under the heading of industrial arts, one teacher operates a popular sequence of courses in graphic arts (including ROP), while the other has, until 1990-1991, managed a part-time schedule of wood shop classes populated, it seems, by students who have nowhere else to be. By Spring of 1991, this woodshop teacher was teaching a full-time schedule of basic math classes. One lone business teacher fills a teaching schedule with introductory level computer classes. The principal is reluctantly considering "bringing back" offerings in auto shop, not because they fit with her vision of what the high school program should be (they do not), but because she is pressed by "the numbers" to find class placements for students whom teachers say are ill-prepared to succeed in the school's academic courses.

The "vocational" presence on this campus is slim, and there is little support among administrators or teachers to expand it. Rather, support for non-academic classes is in the form of general purpose electives. The graphic arts and early childhood education programs are symbolic of this preferred orientation toward courses enrolling a wide range of students (from those in advanced placement classes to those with no plans for higher education). Some of those courses, including graphic arts, are reasonably well-connected to employment opportunities but are not intended as an alternative to college attendance or as a path into a single vocational domain. The wood shop classes, by contrast, exhibit the much-denigrated “dumping ground” pattern, while the single business teacher supports a full-time load of entry-level computer literacy and computer applications courses that fulfill a graduation requirement.

Valley High School

Valley High School, closer to the urban center, lost its highest-achieving students to Onyx Ridge when the latter opened nearly ten years ago; in some respects, the school has been struggling to recover ever since. Academic teachers see the school as having suffered a deleterious change in student population when Onyx Ridge High School opened in 1982-1983 and "creamed off" the best students from Valley. The vice principal sums up the problem that Valley shares with schools in other districts with proliferating magnet systems: "So we had a school with declining enrollment, a school to the north that took the best, and we were not a magnet. Valley was considered a left-over school."

In the wake of this change, teachers encountered increased enrollment of minority and special education students. More than half (60%) of the student population consists of students of various minority groups, mostly Hispanic. Nearly half of the students (43%) are eligible for English as a Second Language (ESL), bilingual, or special education programs. There has been a steady increase in enrollment in the MITA (Minority-Initiated Transfer Arrangement) program. More than half the students are eligible for Chapter 1 assistance. Valley is also a regional center for special education (18%-20%).

The vice principal interprets the school's major challenge as maintaining an academic program for a student population not traditionally college bound and not well-prepared academically for high school. [The principal, a former industrial arts teacher, is considered to be "good with the kids" and skillful in his communications with the community; the vice principal, who was our main contact throughout the study, was brought to the school "for the academics."] School resources have been devoted to maintaining academic achievement and to increasing college attendance rates for minority and low-income students. The example that springs first to the mind of the school's leaders is the PEP (Personal Effort for Progress) program. The benchmark of success for the program is the extent to which it qualifies minority students for the University of California. Reported college acceptance rates for graduating seniors are high. But the graduating class itself is small; a high percentage (28%) of the school's students drop out before graduation. The dropout rate is highest for Hispanic students—the school's fastest growing group.

With a present enrollment of 950, Valley is the smallest of our five comprehensive schools. The school's block schedule (two hour blocks for four out of five days, and a conventional schedule on the fifth day) would seem to open up multiple opportunities for curriculum integration across academic disciplines and between vocational and academic programs. Nonetheless, the curriculum appears to be developed and taught along traditional subject-specific lines—in part, it would seem, because of the school's orientation toward the UC admission requirements. The problem of curriculum range and depth seems to be defined in terms of available offerings within subjects.

The school's fifty-six teachers include seven (13%) who teach conventional vocational topics, nearly half of which are organized as ROP offerings. Two of the ROP programs are dedicated to special education students. Among our five comprehensive schools, Valley comes the closest to representing traditional vocational education in its declared purposes, program organization and content, orientation of teachers, and stable pool of students. Vocational teachers view the administration as generally supportive of their work, and are optimistic about their ability to sustain enrollment in their programs.

Esperanza High School

Esperanza High School has a thirty-year history of dramatic changes in its institutional persona. Following a period in the early 1960s when it was the premier high school in the district, the school endured several cycles of decline and recovery. The school's leaders present the school as being on the upswing, despite dramatic and demanding changes in the school's student population. The story here is one of accommodations to ethnic and linguistic diversity. In the period 1986-1988, the school witnessed a shift from a nearly homogeneous population (92% middle class white) to a very mixed one: fifty-eight percent low income minority students, many of whom live in neighborhoods distant from the school and many demonstrating little facility with English. Nearly one-third are officially classed as LEP or NEP (limited- or non-English proficient). In the past three years, the school has acquired four ESL specialists, but the principal considers the school to be short on staff who are specially trained to work with limited-English-speaking students. The school has turned to vocational teachers to resolve part of the staff shortage in ESL; vocational teachers, in greater proportion than most academic teachers, absorb ESL enrollment in their classes.

When we began our study in 1988, the school listed nine teachers in four traditional vocational departments (agriculture, business, home economics, and industrial arts). Five carried a full-time load in their vocational specialties, three had supplemental assignments in non-academic areas, and the specialist in vocational agriculture divided his time between two schools. In the 1990-1991 academic year, the school identifies nine teachers who teach at least part of their schedule in the vocational areas. Only three are full-time. In agriculture, one teacher continues to split his assignment with Rancho High School. Of the remaining eight, some teach part time in other departments (e.g., business teachers teach English ESL and introductory algebra; the auto shop teacher teaches two sections of physical science), while others fill their schedules with school-level responsibilities.

An issue here will be the place held by vocational interests and vocationally oriented teachers in a reshaping of the school's mission and program. Formally designated vocational programs and explicitly stated vocational interests are in decline, yet the vocational teachers bear much of the burden of accommodating changes in the student population. Officially, the school's transformation revolves around plans for a science magnet. And, ironically, the industrial arts teachers have had little success in interesting the science department in a role they might play in an experimental science program. Here as in the other comprehensive high schools, subject segmentation prevails and vocational interests are seen in relatively narrow terms.

Rancho High School

Rancho High School opened in 1976 with the district's agreement to provide staff with wide autonomy to design a curriculum responsive to "student needs." The staff abandoned traditional departmental organization in favor of three learning houses, each of which combined multiple subject disciplines but were not otherwise distinguished from one another by any special purposes, curricula, or student clientele.

Over the years, these structural arrangements have eroded and teachers have reasserted their subject specializations and have moved toward department affiliations (see Siskin, 1991, on the resilience of subject matter organization at Rancho). The causes are several: cuts in the supplemental state resources that enabled interdisciplinary planning; state curriculum frameworks that underscore subject matter divisions; and staff turnover that has jeopardized continuity of the main ideas, commitments, and relationships. A certain legacy remains. Teachers still report an unusually high volume of cross-departmental communication and a shared commitment to meeting the needs of a diverse student population. But the frequency of communication and kinds of communication needed to create and sustain an integrated curriculum seem unlikely to be achieved on the schedule now in place, with its severe limitations of joint planning time.

Although situated in a growing, relatively affluent neighborhood, Rancho acquired a growing minority population as a result of a court desegregation order in 1986. More than half of the nearly sixteen-hundred students are minority. In 1989-1990, the school was designated a center for LEP and NEP Vietnamese students. (Together, these categories account for about 13% of students.) To ethnic diversity is added an element of economic struggle; teachers portray the present student body, overall, as coming from lower income families, and as not very interested in college. Teachers and administrators claim the transition to the present student population has been smooth, but also acknowledge that the diverse student population has made teaching more difficult.

At Rancho, eight teachers pursue what appears on paper to be a traditional program of courses in industrial arts, business, home economics, and vocational agriculture. And with the exception of one teacher's mixed assignment of geometry and drafting classes, all teachers hold full-time assignments in their areas of specialization. Behind the course titles, however, we find variations in actual course content that are a direct response to the school's profound shift in student population.

Conclusion

Together, these five schools present a range of what we might term "ordinary" urban and suburban comprehensive high schools in California. Each bears the stamp of traditional purposes, programs, and practices; and each is home to innovative impulses in the face of changing circumstances.

Table 1
Summary Characteristics of the Five Schools (1989-1990)

SCHOOL CHARACTERISTICS	OAK VALLEY	ONYX RIDGE	VALLEY	ESPERANZA	RANCHO
Size Small < 885 Medium 885-1500 Large 1501-2075 Large + > 2075	Large +	Medium	Medium	Medium	Large
Minority % Low < 10% Medium 10-29% High 30-55% High + >55%	Medium	High	High +	High +	High
Student Achievement 1 = highest 5 = lowest	2.3	2.3	3.7	3.2	3.3
School Location	Suburban district	Urban district, "suburban edge"	Urban	Urban	Urban
Grade Structure	9-12	10-12	9-12	9-12	9-12
Teachers in Industrial Arts, Home Economics, & Business	17 (12.5% of staff)	5 (9% of staff)	7 (14% of staff)	9 (15% of staff)	8 (11.2% of staff)
The "Main Story" of Vocational Education	1. Suburban affluent school dominated by "college prep" 2. Decline in vocational staff and course offerings 3. Vocational teachers assigned to low-level academic courses 4. Increase in personal interest electives	1. "College prep" mission in a school with sizable bused-in minority population 2. Decline in vocational staff and course offerings 3. Vocational education converted to personal interest electives	1. Academic teachers discouraged by shift in school population 2. Relatively stable vocational program with traditional offerings 3. State-funded occupational programs tailored for special education students	1. School developing as science magnet 2. Decline in vocational staff and course offerings 3. Vocational education used to absorb ESL and special education students 4. Pressure to "market" personal interest electives	1. Non-traditional school organized into "learning units" 2. Decline in vocational staff and course offerings 3. Vocational education used to absorb ESL and special education students 4. Pressure to "market" personal interest electives